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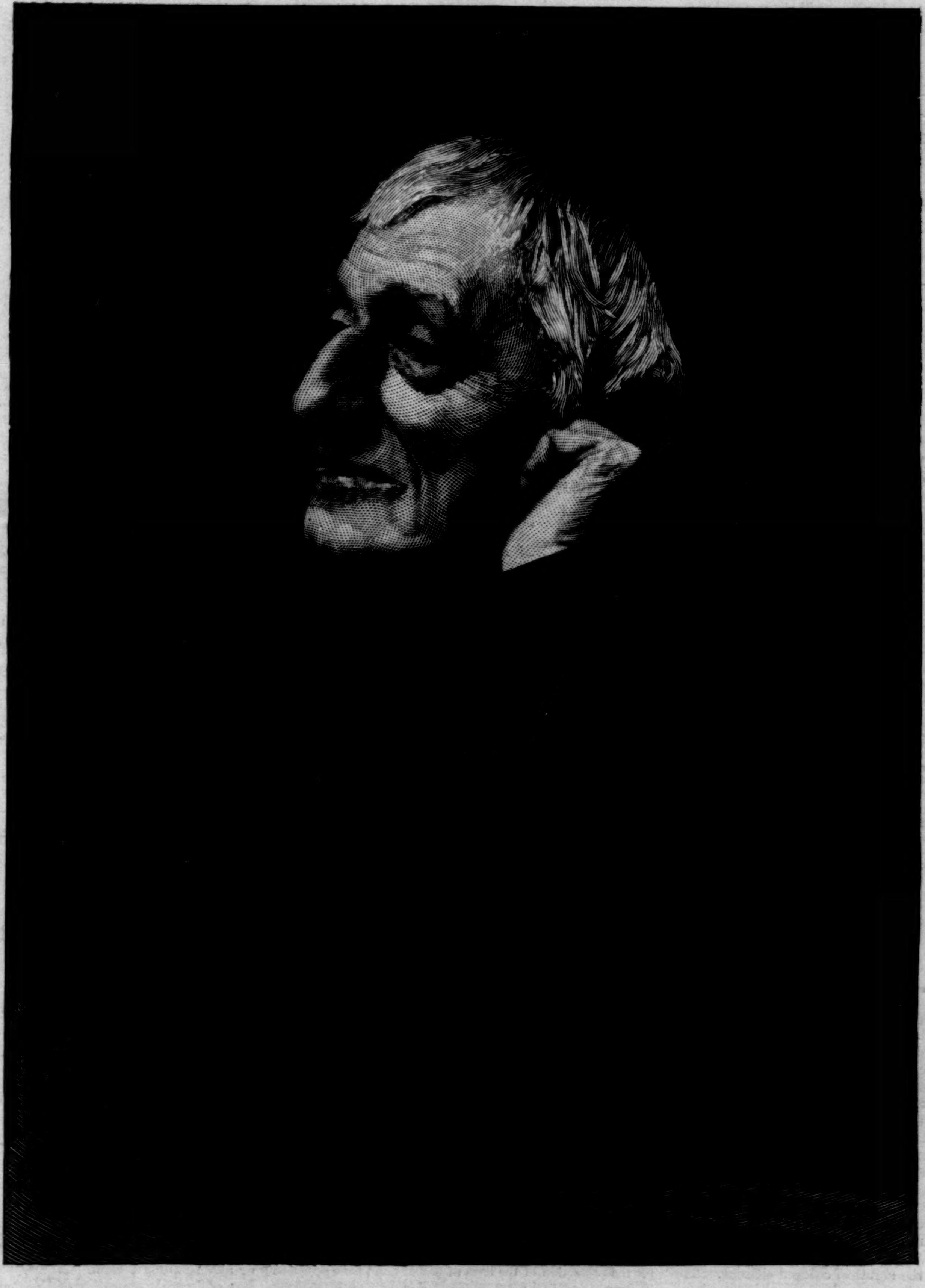

THE LATE JOHN HENRY NEWMAN, CARDINAL DEACON OF THE ROMAN CHURCH.—From a Photograph.—[See Page 662.]

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THE ELECTION BILL IN THE SENATE.

SENATOR HOAR has reported the election bill shorn of some of the provisions which passed the House. The substance of the law as reported, the Senator says, is this:

> "Whenever application is made to a Judge of a Circuit Court for the inspection of the election in any town or city of 20,000 inhabitants or upward, or of any county, township, parish, or precinct, officers may be appointed for that purpose, three in each precinct, of whom not more than two shall be of one political party. It is made their duty to supervise, inspect, and witness the election; but the registration and the election and the certification of the result thereof are left in the hands of the local authorities. When inspection is provided for a whole Congressional district, however, there shall be three State commissioners appointed by the court, not more than two of whom shall be of one political party, who shall issue a certificate of the result of the election in that district. The certificate thus made shall be used by the Clerk of the House in making up his roll of members. Any person who shall make under oath a statement that he believes he is entitled to a certificate of election may have the case examined by the Judge of a Circuit Court. If that Judge find that the certificate of the commissioners is not correct, he shall issue a certificate; and that certificate shall be final until the case is acted on by the House of Representatives. It shall be *prima facie* evidence of the right of the person named therein to a seat in the House. The rest of the provisions are merely an extension of the law which has been enforced in New York State for a number of years."

The Circuit Court appoints commissioners, who supervise the election and certify the result, and their certificate is binding upon the Clerk of the House in making up his roll, unless the Circuit Judge, upon complaint and examination, finds it to be incorrect, in which case his certificate in favor of the complainant shall be *prima facie* proof of his claim until the House acts upon it.

This bill vests the supervision of the election in any Congressional district in national commissioners, whose certificate of the result of the election governs until the House decides. The changes in the bill as it passed the House are changes of detail, not of substance. The objections against the original bill remain, and they are urged strongly not by Democrats only, but by Republicans. They do not involve, as many Republican papers assume, indifference to honest elections or to the rights of colored citizens. The evils of dishonest elections, whether arising, as is alleged in Albany, from frauds upon white voters, or, as in some Southern districts, from terror and fraud upon colored voters, are undeniable, and we have not seen that they are either denied or defended by those who think the election bill unwise. Mr. **MURAT HALSTEAD**, who is suspected of loving mugwumps even less than Democrats, and who long rivalled Colonel **SHEPARD** in the vigor of his Southern campaigns, who wears among his decorations the title of apostate, conferred by that eminent veteran in *post bellum* Southern warfare, Senator **CHANDLER**, says frankly that he thinks the bill inexpedient. That is to say, he thinks that it cannot accomplish its object, and in the effort will do immense mischief. Such opponents of the bill as Mr. **HALSTEAD** cannot be branded as indifferent or hostile to the colored voters, and there are so many of them in the Republican and colored ranks that it would be only fair for the supporters of the bill to assume that their opposition is in the interest of the colored citizens themselves.

The bill will probably pass the Senate if it reaches a vote. But there is no doubt that the Democratic Senators will defer action as long as possible. If there are any Republican Senators who think the bill a mistake, they can readily prevent its passage by maintaining the traditional unlimited freedom of debate in the Senate. They can thus eat their cake and have it. For in defending the ancient practice, which is a bulwark of constitutional liberty, they can secure the postponement of action which they think to be unwise. It seems hardly probable that the previous question, although proposed by Mr. **HOAR**, will be adopted as a rule of procedure in the Senate before the debate upon the election bill begins. In view of the Republican opposition to it already expressed, its friends will probably prefer to trust its adoption to the irritation which Democratic opposition and the kindling of political passions by debate may produce. Even then it is more likely that action closing discussion in this particular case would be taken than a general rule adopted reversing all the precedents of debate in the Senate. The President is reported to be willing to sign the bill, and there is no reason to doubt it. Some words are quoted from his speech in the Senate in 1886 as showing a doubt of the constitutional power of Congress to protect personal rights in the States. A later speech—in March, 1888—before the Marquette Club, in Chicago, laid especial stress upon the relief of the suppressed colored vote as the chief Republican duty. He said, "It seems to me that the work that is unfinished is to make that constitutional grant of citizenship, the franchise to the colored men of the South, a practical and living reality." He said it amid "great applause"; but he added, "I do not know how far there is a legal remedy under our Constitution," although he thought it a duty constantly to protest. With his feelings and in his position, if Congress finds a legal remedy, he is not likely to reject it.

STRIKES AND THE PUBLIC.

THE law regulating common carriers makes the public a party of the first interest in the conduct of railroads. The Legislature provides for the safety of persons and the transportation of property, and requires of the railroad company a proper performance of its contract with the public. Any interruption of the traffic is just cause of public complaint and demand for redress. But the railroad company in this sense is not the officers and stockholders only, it is the operating force of the road, without which its duty cannot be performed. This view was strongly and plainly stated by the State Board of Mediation and Arbitration in 1887. It said:

> "A railroad is a quasi-public highway of the State, subject as much to regulation by the State for the public benefit and for the protection of the lives of people who travel, and for the transit of the property carried on it, as if the State owned and operated it itself. When a man takes service upon a railroad, whether as an agent of the corporation or an operative upon the line, he becomes a quasi-public officer, and hence subject to such regulation by law in the discharge of all his duties, and the time and manner of his abandonment of them, as are appropriate to protect the lives of persons and the transit of property carried upon the road. No dispute between these quasi-public officers about the price of labor or any kindred thing should be permitted to jeopardize the lives or interrupt the transportation of property of citizens, to whom the use of the railroad daily has become a matter of necessity."

This is the common-sense view, and it takes the strike of an organized body of railroad operatives wholly out of the category of mill hands striking against the owners, because it produces an immediate and disastrous interruption of the accustomed order of the community. The State Board said, therefore, that "the operatives of a railroad, from engineers down to trackmen, are, in the practical relations of their services to persons and property transported, far more important as factors than officers of the corporation, and should be held to due responsibility." And it declared that

> "the Legislature exhausts only half its power and performs only half its duty when, in making appropriate regulations for the protection of the lives of persons and transportation of property carried upon railroads, it stops with their application to the corporations and their officers."

A sudden strike upon a railroad like the Central, with no warning or intimation to the public, is a calamity which falls immediately upon wholly innocent persons, and produces general disaster to the family and to business. It is a gross public outrage, for which the public should have some other remedy than the chance of the ability of the railroad company to supply the labor which has been suddenly withheld. Undoubtedly this startling confusion, the arrest in a city of the daily supply of the necessaries of life, the wide-spread suffering among women and children, the derangement of every kind of social and business relation consequent upon such a strike, are the very means designed by the strikers to effect their purpose. They assume that the public, impatient, and indignant under such a blow, will insist that the company yield to the demands of the strike, whatever they may be, or that the union of railroad employés in the strike will be so general and resolute that the company will submit from sheer inability to proceed without submitting. Until the conditions of civilized society are overthrown such a strike is not a mere quarrel between employers and employed. It is the concern of the entire community, and involves the rights of every citizen. It is manifestly a proper subject for legislation, like every other interest of social order. It is not a question of rich or poor, or labor and capital, in the usual sense, but of the orderly continuance of society.

If intelligent men who are employed in any capacity upon a railroad think that they are justified in producing quasi-anarchy in any community because they may have a just grievance, they hold views which are fatal to all social order. They may not see it, but what they propose as a remedy for an alleged grievance is war. They do not defy a railroad company. They challenge the whole community of intelligent, industrious, and law-abiding citizens, who are the overwhelming body of the American people. Public sentiment in this country is not peculiarly favorable to great corporations, or inimical to those who live by wages. The vast majority of the people live by wages, and upon any plain statement of wrong to railroad hands, or any other wage-workers, the pressure of public sympathy is with them. Railroad companies have no right to regard themselves as engaged in an exclusively private business. They are bound to act with regard to the probable effect of their action upon the public, from whom they have received franchises, and with whom they have made a contract. There is a similar obligation upon the employés of the road. Both company and employés have assumed duties to the public which they cannot honorably disregard. This is a truth which was never so clearly perceived as now, and never more emphasized in the public mind than by the late Central strike.

PROHIBITION BY PERMISSION OF CONGRESS.

THE President has signed the "original package" bill, which thus becomes law. The Supreme Court held that the sale of liquor in the original package could not be prohibited in a State without the permission of Congress. The decision rested upon the power of Congress to regulate commerce "among the several States," and the act which has just become law is held to be a regulation of inter-State commerce by Congress. But its consequences and implications are of great importance. It subordinates the police power of a State to Congress. However injurious to its welfare a State may decide certain articles to be, as dynamite, nitro-glycerine, or whatever else, the principle of the decision is that it cannot prohibit their sale within its limits so long as they are sold in the original package, unless Congress chooses to intervene.

There is one important express constitutional restriction upon State authority which is made dependent in terms upon the permission of Congress. The States are forbidden to levy import dues without the consent of Congress. The Constitution thus authorizes Congress to permit a State to levy such dues. But where does it authorize Congress to permit a State to prohibit the sale in the original package of any article lawfully imported? In other words, how can Congress, as the late decision implies, delegate to the States its power of regulating inter-State commerce? If Congress may authorize one State to regulate it at one point, it may authorize every State to regulate it at all points, and thus authorize the whole field of inter-State commerce to be regulated by the States. Under this plea the police power of the State, which is one of its most vital and fundamental powers, may be swept away. Where is the clause of the Constitution which confers this extraordinary authority? Yet if the decision of the court be a correct interpretation of the Constitution, the authority to regulate inter-State commerce supersedes the police power of the State, which, in that case, cannot prevent or regulate the entry and sale of diseased cattle within its limits, or gunpowder, or strychnine, or any noxious poison. At present the prohibitory law of Iowa is operative only because Congress permits it to be so. If the same permission be accorded to other States, it is only because Congress chooses, because it might refuse to authorize the passage of such a law in all of them.

It is plain that if the decision of the Supreme

Court be sound constitutional interpretation, the powers of the States are much more circumscribed than have been supposed. The fathers cannot be held to have intended, by a grant to Congress, to regulate inter-State commerce, to control the sale of liquor or poisons or other destructives in a State. But that is the construction which the new law places upon the Constitution. It is all the more surprising that it should have been favored by the judges who belong to the State-rights school, and that doubts and criticisms of it should be assailed by many papers of the same political school. Powers not expressly granted by the Constitution are generally held by that school to have been reserved to the States or to the people, and if there be one such important power which was not expressly granted, it was the local police power—the power of protecting local health, order, and good morals.

ELECTRICAL EXECUTION.

The execution of Kemmler by electricity, the first event of the kind, was so described in the papers that it produced a great shock in the public mind. The accounts were written generally by those who were not present, and they were written evidently for effect. But when every allowance is made it is plain that there was great mismanagement, and that the body was burned at points of contact. The scientific men present were greatly excited, and the whole impression of the painful scene is that of uncertainty as to every important detail. The doctors who conducted the autopsy were agreed that instant unconsciousness followed the first shock, but that is questioned by other electricians. The horrors of the scene, and the torture, if any, are alleged not to have been greater than in the case of hanging. But in any view, as a spectacle of legal punishment in this country and at this time it was amazing. Execution by electricity was designed to be a painless and merciful punishment. But it was not demonstrated to be such in the case of Kemmler. It was an experiment which certainly failed to convince. The public mind cannot be said to be satisfied that it is less painful than hanging. Should another criminal be put to death in the same way, there would be the same excited doubt over an uncertain experiment.

The incident has naturally opened again the question of the expediency of capital punishment. This question was summarily discussed three or four months ago when General Curtis's bill abolishing capital punishment was suddenly passed by the Assembly. The general expression of opinion at that time was adverse to such precipitate action upon so grave a subject as the repeal, and it was thought that, without in the least involving General Curtis, something else than the merits of the case decided the vote. The flurry of comment in the press elicited the opinions of eminent judges upon the point. Judge Barrett stated that although at one time he had been greatly impressed by what he called the views of the idealists, an expression which shows the bent of his mind, yet he was now confident that capital punishment is essential to the preservation of human life, and that its abolition would multiply homicides beyond conception. Judge Cowing expressed the same opinion, regarding the death penalty as a very great deterrent, and opposition to it as sentimentalism. He cited the example of Switzerland, which abolished capital punishment for a time, but resumed it. Judge Daniels also, of the Court of Appeals, said that he regarded capital punishment as the greatest deterrent from murder.

But both Judges Barrett and Daniels seemed to regard the certainty of the penalty as the essence of the deterrent. They both said that imprisonment for life left a hope, and that this hope was the chance which was taken by the murderer. But it is rather the chance of escaping detection which the murderer considers. Murders of passion, of course, are not affected by any deterrent. Murders of design are matters of calculation, which include the escape as the chief consideration. Punishments of all kinds, however, in the view of penalogy, are not to be considered merely as deterrents. Statistics show that the deterrent force of the death penalty is hardly appreciable, while the constant restriction of it, and the larger safeguards which are thrown around the accused, show both the apprehension that life has not been adequately protected, and a disposition to take life only under extreme and indisputable circumstances. The passage of the abolition bill last winter makes it probable that if an effort should be made to repeal the law for electrical execution, the proposition for abolition of capital punishment would be again presented.

GENERAL BARLOW ON PENSIONS.

It is refreshing, in the midst of the cowardice and demagogy which distinguish generally the talk about pensions, to bear the plain truth eloquently told by a brave soldier. The fear that somebody or something will lose votes if the wildest demand for pensions is not favored, muzzles public men and the press until we have gone far to degrade the name of the patriot soldier, and turn the Union veteran into a mendicant. The subject has not been better treated in Congress or in the press than by General Barlow in his late letter to the *Evening Post*. He was one of the most heroic of soldiers, rising from the ranks to the General's stars; he was engaged in many of the great battles, always at the front, and wounded apparently unto death. If any man in the country knows what military service and battle and patriotic devotion are, it is General Barlow, and if anybody can speak of pensions with knowledge and authority, he is the man.

He lays down the true principle of pensions in these words:

> "That the American people should be eager to provide for the soldiers who fought its battles if they were wounded or lost their health in the service, and also to provide for the widows and minor children of these soldiers who lost their lives, when such aid was needed, no one can deny. This is only justice, and is in accordance with the pension laws which prevailed shortly after the war, and in accordance with the practice of most if not all civilized nations."

This is the genuine and universal feeling of the country. But it does not follow that every man whose name was on the army roll was a brave or deserving man, and it is a monstrous wrong, he says, to confound every coward, shirk, and straggler with the men who took the risks of the service and did the work. The bummers and runaways do not merit equal rewards and honors with brave and faithful soldiers, and the policy of rewarding the worthless equally with the worthy must inevitably be destructive of the military spirit of the nation and the manhood of the soldiers in any future war, besides dishonoring the Union veterans, who are made to appear as mendicants.

General Barlow points out that there were great numbers of hard-working men who were not in the field, but who did their part for the success of the war by their labors and by paying taxes, while there were tens of thousands in comfortable clerical posts who never saw an enemy and were never exposed in battle. It is a gross injustice to the true and honorable and scarred veterans who faced and fought the enemy to treat all alike who were technically soldiers. General Barlow's words are so strong and true, and they are spoken by a soldier who is so wholly beyond imputation or suspicion of interested motives, that they will do much to arrest the recklessness of pension legislation.

LIMITING DEBATE IN THE SENATE.

The Senate has deliberated for a hundred years without a rule enabling it summarily to close debate. Experience has not shown such a provision to be necessary, or it would have been adopted, since it requires only the consent of a majority. There is no present evidence of its necessity in the Senate. Why, then, does Senator Hoar propose it? Obviously to secure the passage of the election bill. If that bill be really the will of the majority, ought the majority to be prevented from passing it? If the country really wishes a high tariff, and the national purpose upon such a subject can be known in no other way than by its choice of Representatives, ought the opponents of such a policy to be able, under rules of Congressional procedure, to thwart the national will?

On the other hand, Representatives, whether in the House or the Senate, are not attorneys or delegates. They do not meet merely to record votes, but to deliberate, and then to decide what the vote shall be. Deliberation is as essential a part of the function of both Houses of Congress as voting. But deliberation implies argument and change of mind. It cannot be said, therefore, that debate is a useless waste of time. Yet as mere talk is accepted as debate it is clear that no decision could be reached if the debate must continue until everybody is agreed. It follows that when there has been reasonable debate, that is, when everybody has evidently heard all the arguments which are to be presented, a vote should be taken. This point of reasonable debate must be determined in some way if there is ever to be a decision, and the determination must be made by the majority.

But this reasoning is no sounder or more applicable now than it has been since the Senate was first organized. Instead of assuming that a necessity is about to arise for such restriction as Senator Hoar proposes, it would be better to wait until it does arise. Then the obvious necessity would perhaps reconcile public opinion to so radical a change.

ALLIES OF TAMMANY.

Some Republican leaders have issued a fervent exhortation to their fellow-Republicans to insist upon a party nomination for the city election in the autumn, and not to listen to the siren voice of a citizens' movement. The Tammany organs are loud for the same policy. This harmony is not unusual. On the contrary, it is the explanation of the supremacy of Tammany. There are excellent citizens among those who sign the Republican appeal, but, as the *Tribune* remarks that if Senator Plumb "had been more of a statesman and less of a politician, he could not now be tempted to cater to democratic opinion," it might be said that if these gentlemen were more mindful of the lessons of experience, they would not now be tempted to cater to Tammany success.

"For thirty years," they say, "the city has been in the hands of the Democratic party." During all that time the Republicans have been trying to take it out of their hands. What is the reason of their failure? Want of votes. Their plan requires that the city become Republican before they can succeed. In all probability, therefore, so long as it is a mere contest between the two parties, the Republicans will be beaten. The only chance for the defeat of Tammany lies in changing the character of the contest.

If the appeal to the voter be his view of national politics, he will vote accordingly. If he is asked by his vote for Mayor to express his views upon the tariff, or the election bill, or pension legislation, he will vote as a Democrat or a Republican. He will certainly not vote in a way to strengthen national measures which he opposes. But if the municipal issue shall be confessedly, and without fear of misinterpretation, simply honest local administration of opening and lighting and cleaning streets, and of the police and fire departments, he will vote not as an advocate of protection, or of State control of elections, or of free silver coinage, but as a New York tax-payer and citizen. If, as the address of these gentlemen asserts, party organizations exist and cannot be prevented from asserting themselves in municipal elections, and if, as a consequence, everybody must vote either as a Republican or a Democrat, these excellent gentlemen merely exhort the city to acquiesce in Tammany rule, and promise to help to secure it.

BOLTERS NOT OUTCASTS.

The sharp denunciation which is directed at Senator Plumb and Mr. Halstead, and other Republican dissenters from the strict letter of the tariff and election bills, reminds the *Herald* and other observers of the fact which Colonel Higginson used to remark in 1884, that bolters, if they repent, are readily forgiven. In this State Mr. Hiscock, Mr. Depew, and Mr. Reid are among the most eminent and honored Republicans. They are also among the most severely orthodox. But they all resolutely opposed the Republican Presidential candidate in 1872.

Mr. Depew was the unanimous choice of the New York Republican delegation in the Convention of 1888 for President. Yet in 1872 he was the candidate for Lieutenant-Governor on the Democratic ticket. Mr. Evarts is a Senator of New York in full Republican communion, but he was Andrew Johnson's Attorney-General, and he agreed with the Democrats in condemning General Sheridan's course in Louisiana. There are many other conspicuous and ardent Republican leaders of to-day who have bolted the party candidates, and have even voted for Mr. Tilden and other Democrats. Their party defection for the time was absolute. It was very much more definite and complete than Mr. Plumb's. Mr. Plumb has voted for smaller duties on crockery, and he has expressed the hope that the people of the United States may have a chance. But he has not voted against the tariff bill, and even if he should vote against it his offence would still fall far short of the offences of those who are now wearing party crowns and sitting upon party thrones.

There was a New-Yorker in the last century, a party man, and one of the noblest political figures and most illustrious public servants in our history, who said "adherence to party has its limits, and they are marked and prescribed by that supreme wisdom which has united and associated true policy with rectitude and honor and self-respect." These are the words of John Jay, who practised what he preached.

PERSONAL.

Mr. Joseph Hatton, well known to American readers, and who has numerous personal friends on this side of the Atlantic, will take a vacation in New York in the fall. His newest novel always deals with his latest travels—notably *By Order of the Czar*—so we may look for some fresh reminiscences of the United States in his next year's book. His daughter, Miss Bessie Hatton, who has made a distinct mark on the London stage, will accompany him. She is engaged by Mr. Palmer to support Mr. Willard in *The Middleman* and *Judah*. Willard is a great friend of Hatton's, and is said to be, after Irving, London's best actor and cleverest stage-manager.

—Richard Wagner's only son, Siegfried, recently made his début at a private concert in Bayreuth, but is said to have given little evidence of having inherited his father's genius.

—Bismarck is opposed to having monuments to himself erected during his lifetime, and has asked that the money collected for the purpose of building a hall in his honor in Berlin be used in constructing a memorial church.

—A rugged and useful life was ended the other day, when Rev. Adin Ballou died at Milford, Massachusetts. He was self-educated, and entered the ministry at eighteen, but soon revolted from the extreme orthodoxy of the Christian body to which he belonged, and after that preached and followed a creed peculiarly his own. He was a Christian socialist long before Kingsley and others began that movement in England, and in 1842 organized the "Hopedale Community," where he hoped to work out the principles of Christian social unity. This attempt failed, principally, as he claimed, through the encroachment of the world, but he continued to live till the time of his death among the people he had gathered about him. His home was made the Gretna Green of hundreds of lovers, of all denominations, and during his life he married 2398 couples. Mr. Ballou was a prominent Freemason, and at the time of his death was eighty-seven years old.

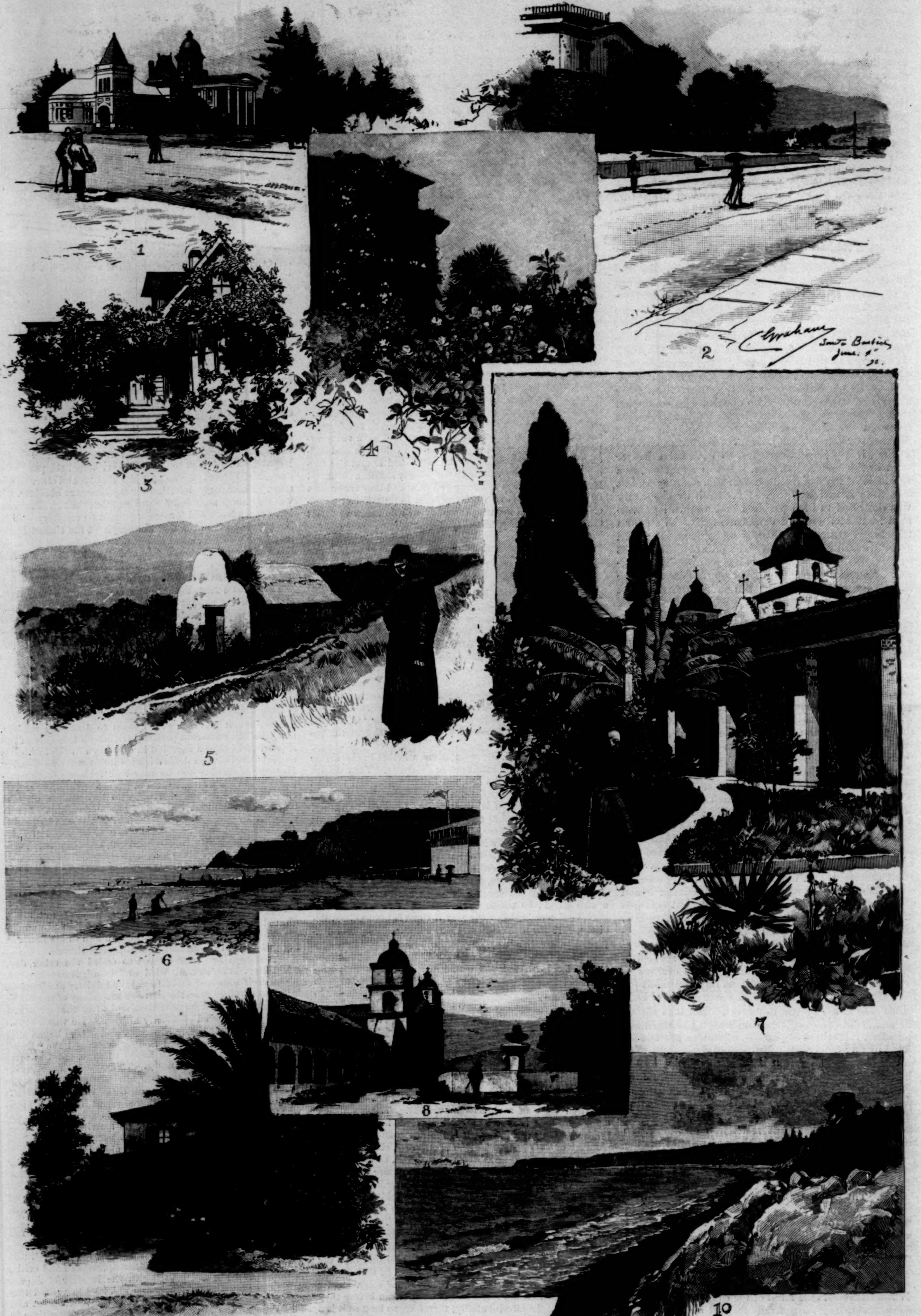
—A small collection of walking-sticks once owned by George II. and George IV. was sold recently in London for prices varying from $40 to $145.

—The insanity of King Otho of Bavaria has developed into a violent form, and it is thought that he cannot live long.

—King Kalakaua of Hawaii will visit London this fall if he can raise the money to pay his expenses.

—Henry Savage Landor, a gifted young artist, and grandson of Walter Savage Landor, the poet and critic, is now travelling and painting in the interior of Japan. Although only twenty-four years old, he has visited this country, Alaska, Egypt, and much of the Continent, and hopes during the next three years to spend some time in Siberia, Corea, China, and Australia. Then he will exhibit his work in London.

—Ex-President Cleveland's latest real-estate venture is the purchase of the large Tudor estate at Tudor Haven, on Buzzard's Bay.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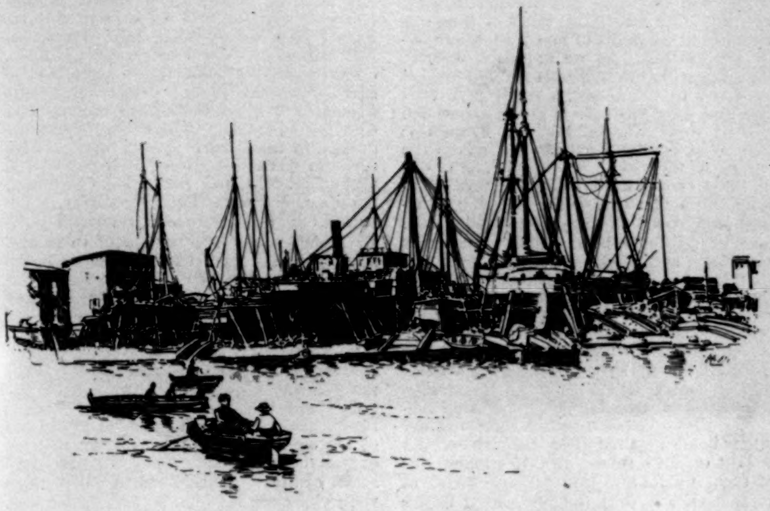
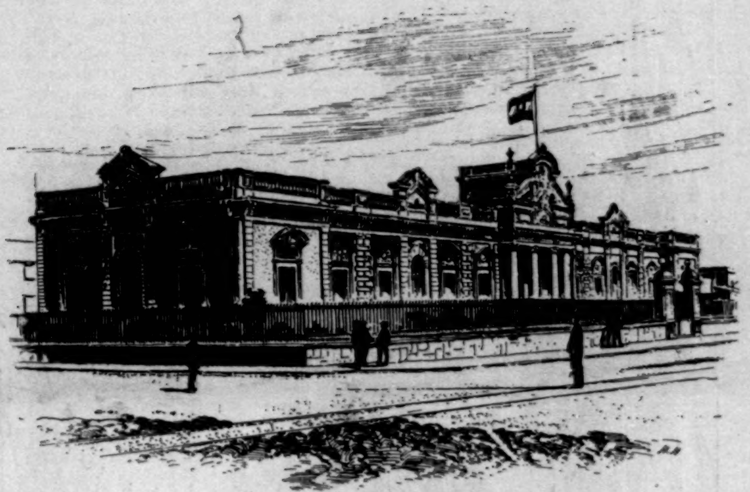
SKETCHES AT SANTA BARBARA, SOUTHERN CALIFORNIA.—DRAWN BY CHARLES GRAHAM.—[SEE PAGE 663.]

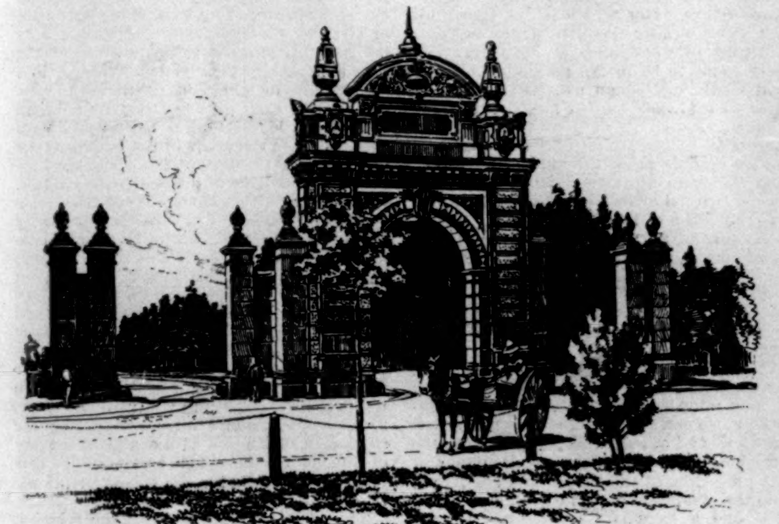
1. City Hall and Hall of Records. 2. A Street. 3. Rose Cottage. 4. Roses in Private Grounds. 5. Ruin near the Mission. 6. The Beach and Bath-Houses. 7. In the Garden of the Mission. 8. The Old Mission. 9. Private Residence. 10. The Cliffs and Sea-Shore.



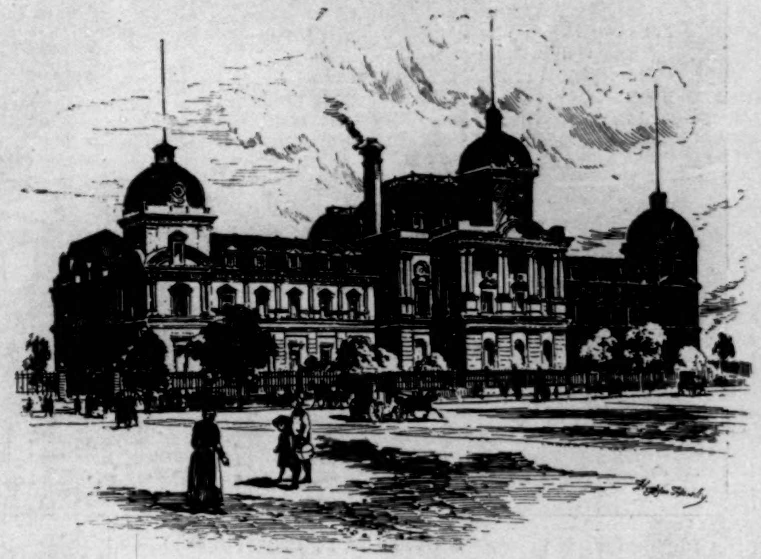
SHIP-YARDS AT LA BOCA.



THE GOVERNMENT BUILDING.

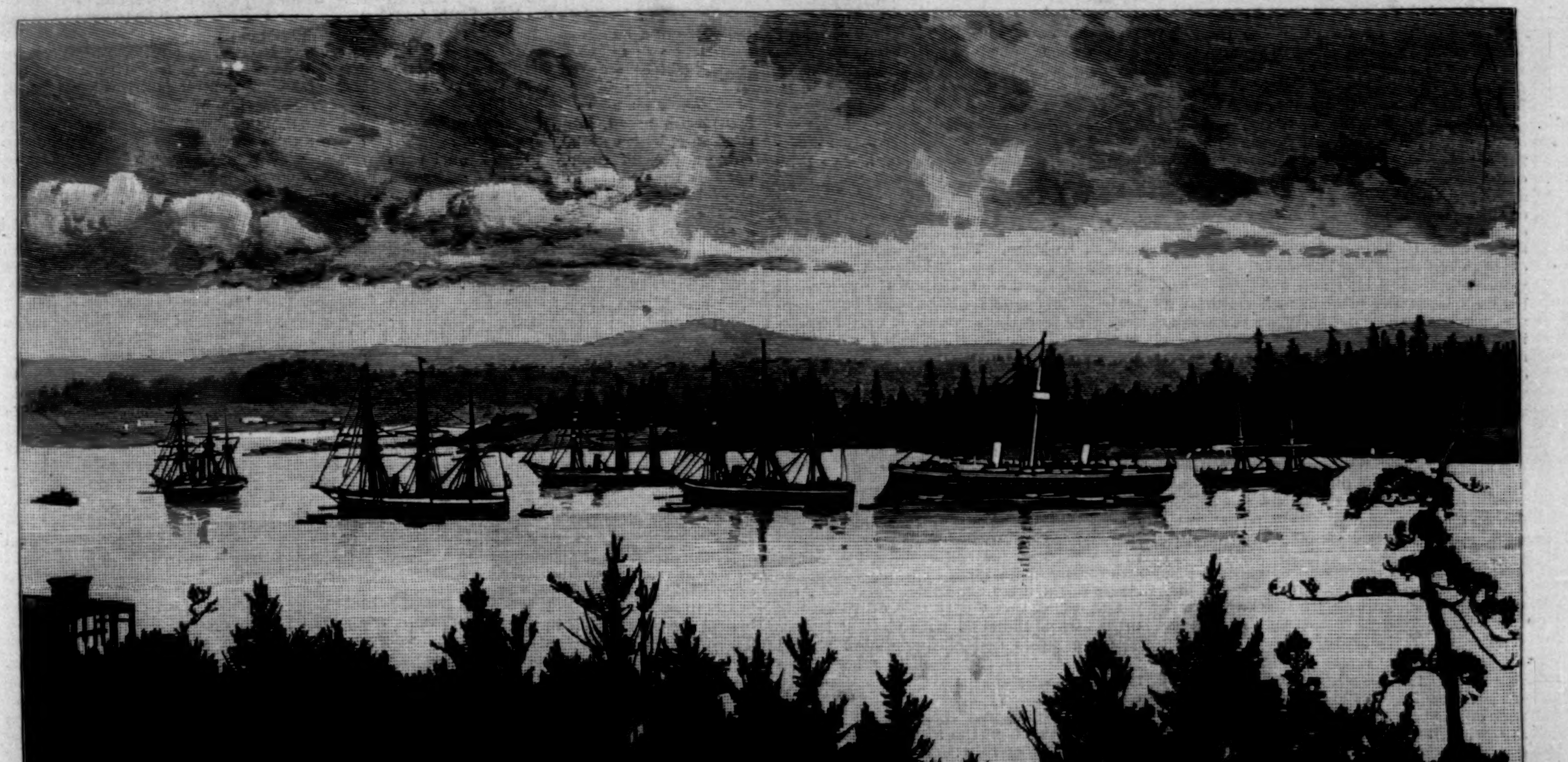


UNFINISHED ENTRANCE TO THE UNFINISHED PARK.

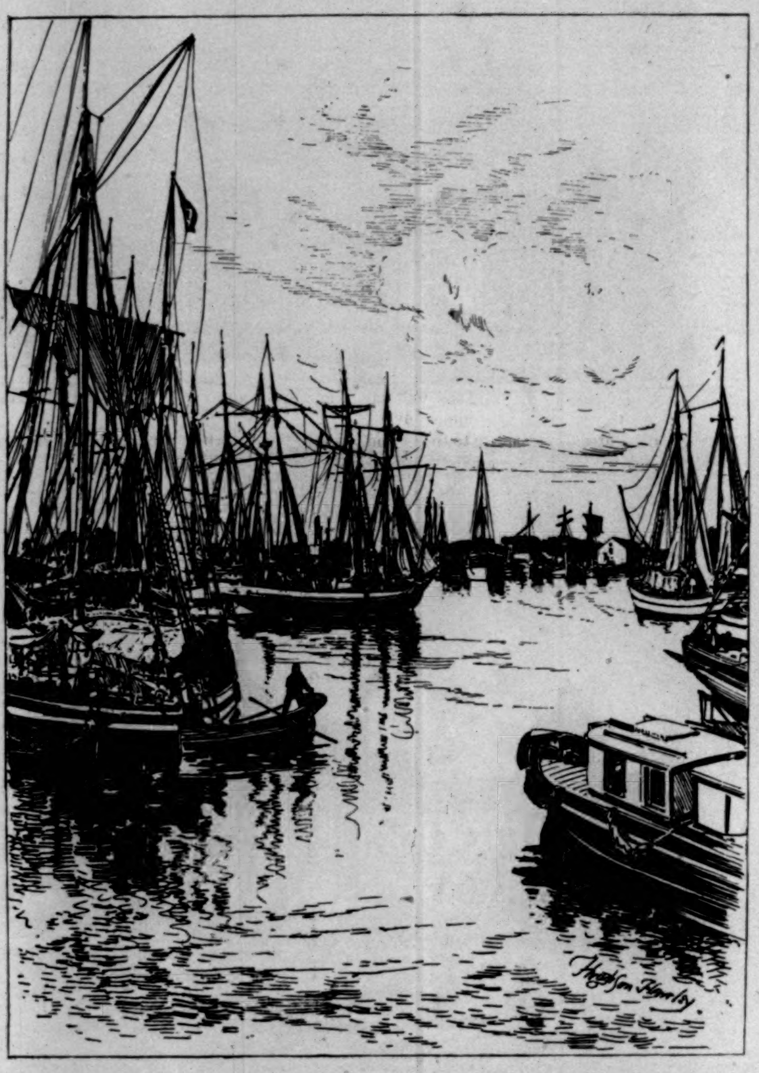


THE GOVERNOR'S PALACE.

THE CITY OF LA PLATA, ARGENTINE REPUBLIC.—From Photographs.—[See Page 654.]



THE BRITISH FLEET IN ESQUIMALT HARBOR, BRITISH COLUMBIA.—Drawn by Charles Graham.—[See Page 662.]



SHIPPING AT LA BOCA.

ARGENTINE NOTES.

THE CITY OF LA PLATA.

BY THEODORE CHILD.

EVERY visitor to the Argentine Republic is particularly recommended to go and see the new town of La Plata. It is one of the wonders of the world, he is told; a city of palaces, not yet ten years old, and already having a population of 60,000 inhabitants. Naturally one accepts the advice, and after a scramble for a ticket at the Central Station, and another scramble for a seat in the train, one starts full of expectation. The railway passes through the Boca and Barracas—the port of Buenos Ayres awaiting the completion of the new docks—past regions of marshy and desolate neglect, where human beings live in wooden sheds and huts, and divide their life between labor and misery; past Quilmes, a neatly laid out town, with villas and gardens in the environs; and so, after a ride of an hour and a half across flat and uninteresting country, we arrive in the monumental railway station of La Plata, the new capital of the province of Buenos Ayres. The station is a vast pile of immaculately white stucco. We admire, marvel, and pass. We breakfast at the Café de Paris, a gorgeous and brand-new hotel, with an immense dining-room, whose walls are adorned with a superabundance of mirrors and stucco ornaments, while the elaborately painted ceiling is supported by columns of simile-marble. Then we issue forth to see the town, which is laid out in squares and in stars, with broad streets, wide avenues, immense boulevards, lined with tall telegraph poles, and still taller masts for electric lights, traversed by innumerable tramway lines, and bordered with palaces all brand-new, radiant with spotless stucco, and manifesting the most eclectic taste on the part of the architects. Each palace with its garden occupies a hectare of ground, and each is of different design—Italian Renaissance, Corinthian, Doric, and composite—of a diversity enough to bewilder even a Vitruvius: palace of the government of the province, ministries of Public Instruction, Interior, and Finance, Banco de la Provincia, Banco Hipotecario, Prefecture of Police, Direction of Public Works, Direccion General de Escuelas, Chamber of Deputies, Senate, courts of justice, a theatre, an observatory, a museum, a Governor's palace, a monumental entrance to nothing, a sort of triple arch of triumph, beyond which is a funereal-looking plantation of tall eucalyptus-trees, destined to be some day the Bois de Boulogne or the Palermo of La Plata. There are houses, too, many of them unoccupied, shops that look deserted, a big market, twenty-three squares and plazas, monuments and fountains, and a cathedral of enormous proportions, whose walls have absorbed millions of bricks, although they rise only about three metres from the ground. The cathedral is the only building in La Plata that has remained unfinished for want of money. All the others are completed, and full of employés and officials who live on the budget. The fire-brigade likewise has its palace, and its corps of forty men in uniform, whose duties are a sinecure. However, La Plata being a model town, everything must be modern, the newest and most perfect in its kind that Europe can produce. An instance occurred while I was in the country. News had arrived from Paris that there were fire-engines capable of serving 1000 litres a minute. The La Plata fire-brigade must have one; the municipality gave the order; a Belgian house furnished the pump; and the new toy had been delivered the day I happened to visit La Plata. The representative of the Belgian firm, whose acquaintance I afterward made, informed me that if all the water laid on in the streets of La Plata could be concentrated to feed one machine, it would be impossible to get even 500 litres a minute. "That is the way things are done in La Plata," he added, ironically.

The aspect of this great straggling town, each street of which ends brusquely in the open and deserted plain, is one of utter desolation. It possesses everything except inhabitants and a *raison d'être*. As for the official figures of 60,000, they are as misleading as many other Argentine statistics. One can hardly believe that there are even 40,000 inhabitants, including those swarms of employés who go to and fro by train, and avoid the horror of an evening in La Plata by living in Buenos Ayres or the more agreeable suburbs. And yet at night this empty city of palaces is brilliantly illuminated with electric lamps. The tall masts and glaring globes extend far into the surrounding plain, where there are no houses and scarcely even a semblance of a road. Why? Why indeed? One is all the time asking why this and why that as one wanders about the streets of this unintelligible city of folly. Why, for instance, was the town built five miles from the port, which was projected simultaneously, and inaugurated with much pomp and speechifying in March, 1890? The only explanation that has been suggested is that the promoters of the foundation of the town happened to own land on the spot where it has been built, whereas they did not own the land nearer to the river. Another more charitable explanation is that the object was to leave abundance of room for the future development of the town concomitantly with that of the port.

This port, called Ensenada, is situated on the Rio de la Plata, about six miles from the town, at the mouth of the little river Santiago. It is connected with the town by means of a tramway, and with Buenos Ayres and the great trunk lines by various branch railways. The ride across the pampa is absolutely without interest; the country is flat and treeless after we have passed the eucalyptus wood and the museum, and nothing strikes the eye until, at a distance of some two miles, we notice the masts of ships apparently in the midst of meadows where cattle are grazing. As we approach we find that these small sailing craft and lighters are anchored in the Dique, a small port with fine new wooden quays, a goods depot, and two or three wooden houses. From this port two rectilinear canals run across the pampa to the river. The road follows one of these canals until we find ourselves in a labyrinth of reeds, wood, huts of galvanized iron, sheds and shanties of all kinds, piles of rails and iron sleepers, mountains of bricks and various building material. In this maze we finally distinguish various canals. One of these, lined with fine quays, fitted with hydraulic cranes on one side, receives sea-going ships and their cargo, while the opposite bank remains verdant and willow-clad, and in the background is a wooded hillock, against which stand out the strange silhouettes of dredging and excavating machines, packed close together, some resting, others being repaired after their labors. At a short distance we see an interminable line of stone pillars and iron railings, which at present enclose only the promise of future greatness, and then beyond we reach a magnificent and immense dock surrounded by stone quays. But where is the river? we ask, as we wander along the quays and past tall piles of warehouses in building. The port seems to be in the middle of a plain, and all the canals and natural channels appear to lead only further inland across the pampa. At last we discover the key to the mystery. In front of the port are low islands which entirely mask the view of the river, and the main entrance channel passes between two flat green vistas that remind one of the polders of Holland.

At present all this seems strange and almost absurd, but experts affirm that the port of La Plata is excellent, and, at all events, superior to that of Buenos Ayres. The seafaring people appear to be almost unanimous in condemning the port of Buenos Ayres on account of the difficulty and danger of entering it, and the inadequate shelter which its north and south basins will afford during certain prevalent storm winds. Time, however, alone can show whether this mistrust is justified, and whether, as many believe, the reclaiming of land is the principal object of the projectors of the port of Buenos Ayres, and the making of a good harbor only a pretext and a secondary condition. In any case the port of La Plata appears to be a good one, and there is every reason to believe that its importance will increase rapidly. The adoption of the port of La Plata by several of the great transatlantic lines of steamers is announced as more than probable.

The port of La Plata has been made from the plans of a Dutch engineer, M. T. A. Waldorp. It was begun in 1884, and it is expected will be finished at the end of 1890. The entrance to the port is effected by means of an outer channel 4½ kilometres long and 300 metres broad, formed by two moles, or stockades, built with 20,000 piles and 300,000 cubic metres of stone. This channel runs out into the deep bed of La Plata, and has a central depth of 7 metres. After this channel the ships pass through an inner channel composed of several sections, having a total length of 3½ kilometres, a width of from 180 to 150 metres, and a uniform depth of 7 metres. This canal leads into the great basin, which measures 1500 metres long by 180 metres broad, and is provided with a turning basin at one end, measuring 250 by 220 metres. On each side of the grand basin is a lateral canal with prolongations that enable the coasting schooners to go comparatively close up to the town, and unload in the Dique already mentioned. These immense works are being completed with all the necessary hydraulic machinery, and with warehouses and sheds of gigantic proportions, and the total cost is estimated at $18,000,000 gold. There can be no question that the port of La Plata is a fine piece of work in itself.

As for the town of palaces, it is to be feared that it must remain a curious monument of provincial extravagance. The creation of towns in South America is not as simple and logical a matter as it is in the United States. There being no manufactures employing thousands of operatives and enormous mills, there is no need of industrial towns. The commercial towns spring up and grow to greatness at the points where they are needed, witness Buenos Ayres and Rosario. Pastoral towns there are none, since the pastoral industry does not even need villages; and as for the agricultural industry, it finds its markets along the rivers and railway lines. In the new economical organization of the republic the commercial and agricultural market centres—which serve as feeders to the great ports—are the only towns whose existence has a *raison d'être*, and whose creation and growth can be normal; and this fact accounts for the actual poverty and dulness of the thirteen old capitals of the federated provinces, which are preserved from silence and ruin by their political life alone. It is to this political industry, the monopoly of the creoles and the curse of the republic, that La Plata owes its creation.

In 1880 the city of Buenos Ayres was proclaimed the national capital, and by that fact the province of Buenos Ayres was deprived of its federal capital. The other provinces had their capitals, founded by the will of the conquistadores in the sixteenth century, each one with its plaza; its cathedral, cabildo, Governor's palace, and law courts; its rectilinear streets, traced in the midst of uninhabited solitudes; its belt of *quintas* for horticulture; and its outer zone of *chacras* for agriculture—the whole constituting an autonomous and self-sufficing community, a state within a state. The history of the life of each of these towns during the first centuries of its existence was purely animal and vegetative. Paraná, Santa Fe, Corrientes, Santiago, Mendoza, Cordoba, Jujuy, Catamarca, San Luis, Tucumán, remained mere straggling villages, as several of them still are; but at the same time they were, in the olden days, points of refuge and shelter for the explorers and conquerors in the midst of the desert, starting-points for new adventures, and administrative centres for the settlers and workers in the environs—that is to say, for the subject tribes and slaves. Thus these towns acquired prestige and importance, and their inhabitants were mainly functionaries and parasites. Up to the end of the eighteenth century no towns existed except these capitals. They were the only social centres; the only places where there were churches, law courts, and authorities. The war of independence started by Buenos Ayres woke these sleepy provincial capitals out of their dream. All joined in the work of creating the federation and in securing the national autonomy, while at the same time maintaining their own autonomy. And so each provincial capital continued to be a capital, and each province had its political bodies with high-sounding titles vying with those given to the rulers of the nation by the national Constitution. Thus these capitals continued to have a political *raison d'être*. Of all the provinces Buenos Ayres alone was ever strong enough to oppose the authority of the central power; but at all times a coalition of two or three states could inspire alarm. Nowadays this state of affairs is at an end. In 1880 the question of the unity of the Argentine was settled definitively, and the central power was once for all strongly and surely constituted when it acquired possession of the vast national territories of the Pampa, Patagonia, and the Chaco—which will not be divided into provinces for years to come—and, above all, when it won the support of such a powerful capital as the city of Buenos Ayres, which sacrificed its provincial supremacy for the benefit of the national greatness.

This political event affected the relative, and also the absolute importance of all the confederated states. There was no longer any possibility of resisting the central power, and no longer any reason for jealousy toward the city of Buenos Ayres, which had become the national capital and neutral ground. The whole object of a politician, on the contrary, must henceforward be to get to Buenos Ayres, and hold a post there as Deputy or Senator. In short, as M. Émile Daireaux has excellently demonstrated in his careful study of the Argentine political institutions, the proclamation of Buenos Ayres as the national capital, and the strengthening of the central power by this fact, and by the acquisition of vast national territories, reduced the provincial capitals to mere administrative centres, for the Governors are no longer anything more than prefects, their ministers sub-prefects and secretaries, and the provincial Chambers merely departmental or municipal councils—all in the hands and under the absolute control of the executive power. Local politics no longer affect the march of the nation. Provincial life no longer nourishes ambition. Society follows the politicians to the capital. Day by day the telegraph and the locomotive are completing the social transformation, and day by day the old provincial capitals, instead of issuing from their obscurity, are sinking into more and more complete inactivity, insomuch that if they did not already exist there would certainly be no motive for creating them now. The reason of this is that, with the exception of those situated along the coast or in favored points of railway traffic, none of them corresponds to modern needs. The railways have hitherto gone to them as a necessary terminus, because they are three centuries old and have the prestige of capitals; but the railways have not developed a healthy industry in any of them, their ancient commerce is rarely found to prosper, their old local political life is dying out, and they have no longer any *raison d'être*. To think of reviving in this nineteenth century the antique system of founding cities after the manner of the conquistadores is absurd. Nowadays the site of a city is fixed by public convenience and by the railway, and the foundation begins, as we saw in going across the pampa to Bahia Blanca, by a simple pulperia while the line is being built, which becomes the Café de la Estación when the line is finished; and from an inn for travellers and a stopping-place for the bullock carts and diligences, it gradually develops into a town surrounded by colonies that, in their turn, become towns. Nevertheless, the authorities of the province of Buenos Ayres, seeing themselves deprived of their capital, conceived the strange idea of founding a new capital in 1882, and instead of adopting some prosperous young centre, like Chivilcoy, for instance, they determined to create a new and splendid town, all at once, all complete, and as if by magic. It was an act of folly. The *amour propre* of the province of Buenos Ayres, after having given its capital to the republic, could not resign itself to the humiliation of having no provincial capital in proportion and in keeping with the wealth of the most populous and the richest state of the confederation. The consequence was that on November 19, 1882, the first stone of La Plata was laid. On November 19, 1885, the new city had 26,637 inhabitants. In 1887 the population was estimated at 50,000, and in 1890 the statistics of the province of Buenos Ayres, published in the journal *La Prensa*, stated that the new city had between 50,000 and 100,000 inhabitants, including all the prominent nationalities of the earth, but with a vast majority composed in about equal proportions of Italians and Argentines. These figures, however, are certainly exaggerated, as we have intimated above, even if we include the 3000 to 4000 men employed in the works of the port.

Meanwhile the foundation of La Plata and its magically rapid construction remain one of the most curious sociological monstrosities of our century. As for the future of the town, it cannot be either industrial or commercial; nor can it become a centre of political agitation, because the political life of the province is still concentrated in the national capital of Buenos Ayres. Hitherto there has been much speculation in land and building, but the crisis has brought that to an end. There remains, then, but one destiny for La Plata, namely, to become a city of functionaries; but the functionaries, as we have seen, take advantage of the vestibule train of the Great Southern Railway and avoid residence. Thus La Plata, with its palaces and model streets and its magnificent distances, has to resign itself to the monotonous and vegetative life of Cordoba and Mendoza. And the new port? The new port is distant an hour and a half by train from the heart of the capital, and if it prospers, as seems probable, will cause the growth of a new town for the accommodation of a populace of dock laborers and employés; but Buenos Ayres will continue to hold its commercial supremacy, and the improvised city of palaces will not acquire any more reason to exist than it has at present. La Plata is the wild freak of an imprudent province to which England has opened her purse too freely; it is a foolish and unproductive investment so far as the commonwealth is concerned. At the same time La Plata is an instructive example of the craze for doing things on a grand scale, and of the desire to force the machinery of progress, which have characterized the Argentines during the past ten years, and which, combined with traditional political immortality and corruption, have culminated in an economical crisis and a revolution.

THE REUNION OF THE GRAND ARMY OF THE REPUBLIC.

NEVER before in its history has the city of Boston burst into such a blaze of decoration and flung out such banners of welcome as were displayed last week in honor of the gathering there of the Grand Army veterans in their Twenty-fourth Annual Convention. The last anniversary has been, through its magnitude and the presence of distinguished visitors, the most noteworthy that has occurred since the order was founded. It is now nearly a quarter-century since the time—in the early spring of 1866—when Dr. Benjamin Franklin Stephenson, ex-surgeon of the Fourteenth Illinois Infantry, and Rev. W. J. Rutledge, the ex-chaplain of the same regiment, having met in Springfield, Illinois, devised a ritual and obtained a charter, with a membership of twelve veteran soldiers, organized on April 12th, at Decatur, District of Macon, Department of Illinois, the first post of the Grand Army of the Republic. From so modest a beginning has risen this great order of veterans, an association unparalleled in the annals of the world, which, with a present membership of nearly half a million comrades, sent 40,000 representatives to the Boston meeting last week, all of whom, except those incapacitated by physical disability, on Tuesday, August 12th, marched in the streets of Boston, making the greatest military pageant that has taken place in America since the grand parade in Washington after the close of the War of the Rebellion.

From the natural political bent of the members, and the strong partisan feeling that prevailed in the country at the time the order was founded, the Grand Army had in the beginning a party bias; but this tendency diminished, and as early as 1868 the association clearly defined its position at the National Encampment of that year, when it was voted that it did not "design to make nominations for office, nor to use its influence as a secret organization for partisan purposes"; and the next year the discussion of partisan questions at its meetings was prohibited. At no previous time has it more fully than now maintained the precepts of its beginning, which, briefly stated, are, "Fraternity, Charity, and Loyalty." Its list of past distinguished Commanders-in-Chief includes Generals Stephen A. Hurlbut, John A. Logan, Ambrose E. Burnside, Charles Devens, John F. Hartranft, Lucius Fairchild, Russell A. Alger, and other gallant and well-known soldiers who fought on the side of the Union in the late civil war. The Grand Army has been productive of much good in the lines of the purposes for which it was founded. Through its efforts Soldiers' Homes have been established in nearly every State that was loyal during the war, and in seven States homes have been founded for the orphans of soldiers and sailors. In seventeen States Memorial Day, a commemoration instituted while General John A. Logan was Commander-in-Chief of the order, has been made a legal holiday. It has preserved the field of Gettysburg as a national battle-ground, and is moving successfully to secure monuments to the memory of General Grant and General Logan. Besides the unrecorded charities of individual members, aggregating a vast amount, the Grand Army has expended from its charity fund more than $2,000,000 for the benefit of veterans and their families within and without the order. Other associations auxiliary to the Grand Army are the National Woman's Relief Corps, Sons of Veterans, Union Veterans' Legion, Union Veterans' Union, and Veterans' Rights Union.

In the recent gathering at Boston everything possible was done by the local patriotic organizations to make the stay of the visiting members pleasant. The Woman's Relief Corps of the city organized a Committee on Information, and guides, distinguishable by their badges of white ribbon with red lettering, were stationed at the railway stations during the arrival of the principal trains, in readiness to give visitors a list of boarding-places, car routes, and little guide-books. Every resource of the railways was taxed to provide adequate transportation, and on some of the roads no freight was handled on Tuesday, the day of the grand parade, while extra trains were run whenever the regular train service proved insufficient. For the benefit of strangers a bureau of information was organized, with head-quarters on the Common, and booths in all the railroad stations; and at the principal hotels aids wearing badges were stationed. The policing of the city during the convention was excellent, and every available precaution was taken against accident, and for the care of people accidentally injured. Accommodations were afforded for meetings of the veterans in the various schools and halls in the city and its suburbs. The Boston hotels were unable to accommodate the host of visitors drawn to the occasion, and every private house that would receive "boarders" during encampment week was taxed to its full capacity. The different posts on their arrival were quartered in public halls and other buildings secured in advance for that purpose. In the great Mechanics' Hall alone, known as Camp Sheridan, 5000 mattresses were laid, and here that number of comrades slept and were fed daily.

The State-house, over which floated the President's flag during the time of his stay in the city, was brilliantly decorated; in the centre was the Grand Army badge—the eagle with outstretched wings bearing in its talons the crossed cannon, the sword, and the American flag, from which depends the star—and beneath it this sentence from the speech of Governor Andrew: "Their names, their memory, and their deeds will last while the best actions of men have a record on earth." On the right was the banner of the Loyal Legion, and on the left the banner of the Woman's Relief Corps. On the face of the balcony, in separate panels, were the inscriptions: "Fort Sumter, 1861." "Appomattox, 1865;" and the columns and cornices bore the various corps badges in clusters entwined in laurel. Above these was the seal of Massachusetts, and all these decorations were surrounded by flags and festoons of bunting.

A fleet of war vessels, under command of Rear-Admiral Bancroft Gherardi, arrived to do honor to the occasion, headed by the flagship *Baltimore*, commanded by Captain W. S. Schley, which brought President Harrison, and Secretaries Proctor, Noble, and Rusk, of his cabinet, to Boston on Monday, August 11th. On the arrival of the President he was escorted to his hotel by the Governor of the Commonwealth with a military guard of honor, and, with the members of his cabinet and other distinguished visitors, was given a state dinner at the Vendome. On Tuesday evening a banquet attended by very distinguished guests was given to President Harrison at Young's Hotel by the Mayors' Club of Massachusetts. On the same evening there was a veterans' reception at Mechanics' Hall, addressed by General W. T. Sherman, Governor Brackett, Mayor Thomas N. Hart, Mrs. Annie Wittenmyer, National President of the Woman's Relief Corps, General R. A. Alger, President Harrison, and Vice-President Morton.

The great public feature of encampment week was the grand parade of veterans on Tuesday, August 12th. The route of the procession followed Commonwealth Avenue, Arlington Street, Boylston Street, Copley Square, Dartmouth Street, Columbus Avenue, West Chester Park, and Washington Street to Hanover Street. The decorations on the entire streets were profuse, particularly on Washington Street, the sides of that great thoroughfare from West Chester Park to Hanover Street being a blaze of bright color from large flags draped fan-shaped beneath windows, longitudinal festoons of tricolor, shields, American eagles, portraits of heroes of the civil war, and individual flags on staffs. While the main displays were made on Washington Street, every part of the city was decorated, and this expression of welcome was found in every public place. The City Hall, Horticultural Hall, every office, hotel, and restaurant, were in patriotic and holiday dress; and numberless flags and banners swung across streets, giving welcome to the visiting comrades. On the day of the grand parade business was generally suspended throughout the city, and the shops closed. A touching feature of the day was that in many shop windows the goods had been removed to give place to relics of war-time—old uniforms, worn and rent; old caps, belts, and haversacks, with simple inscriptions attached reciting their years of service.

At several points passed by the procession triumphal arches had been reared. Upon the upper part of an arch at the Arlington Street entrance to the Public Garden was painted a large picture of the battle between the *Monitor* and the *Merrimac*, and through the structure, draped with bunting, the procession, as it filed from its starting-point on Commonwealth Avenue, could see the equestrian statue of Washington in the garden. Early in the summer, in anticipation of this occasion, the flower beds of the entire Public Garden had been laid out in patriotic devices, including badges of the different army corps of the civil war. Around the pedestal of the statue the beds of handsome flowers had been dedicated respectively to the Grand Army of the Republic, the Woman's Relief Corps, the Loyal Legion, and the Sons of Veterans; and four flower beds at the convergence of the paths which meet at the foot of the statue typified the Army of the Potomac, the Army of the Cumberland, the Army of Tennessee, and the Army of West Virginia. Over the main entrance on Charles Street to the Public Garden was a floral triumphal arch of great beauty, twenty-five feet in height, and wreathed with laurel interwoven with golden-rod, the whole set off with vases, plants, and hanging baskets of flowers.

Spanning the great thoroughfare of Washington Street near Newton Street was a grand triumphal arch, each façade painted with a war scene, and inscribed with the words, "Welcome, Comrades." One of the paintings, representing Sheridan riding down the lines of infantry, was flanked by bass-reliefs representing infantry toiling along a muddy road and artillery in action. The other was a copy of a famous picture of the battle of Gettysburg, and the bass-relief represented a charge of cavalry, and sailors at the guns on shipboard. The whole structure was adorned with flags and draperies of bunting. At the junction of Hanover and Washington streets, at the end of the route of march, was a similar arch, with a painting on one side depicting a camp, with stacked arms in the background, and in front some Union soldiers giving of their own rations to famished and ragged members of Lee's surrendered army, and beneath it was the inscription, "We shall meet again." The picture on the south face, representing General Grant on horseback, with a line of marching troops in the distance, was inscribed, "Boston greets the Soldier Citizen."

The windows, yards, stoops, and sidewalks along the route of the procession were densely packed with the largest crowd ever gathered in Boston, who gazed with unabated interest upon the procession during the six and a quarter hours that it was on the march. In Copley Square, where President Harrison reviewed the procession, was a grand stand completely covering the large grass-plat in the midst of this open space, with seventeen tiers of seats, adapted to hold 2500 people. At the easterly end, from a staff seventy-five feet in height, floated the American flag; and in front of the stand, about twenty-five feet from the eastern extremity, fronting Huntington Avenue, was a canopied platform profusely decorated with bunting, which was occupied by the President and several members of his cabinet. At Franklin Square and Blackstone Square, on Washington Street, just below the first grand arch, a stand with ten tiers of seats, occupied by the municipal officers and their friends, rose into the thick foliage of the elms, the structure extending the entire length of the square, 350 feet. Across the street, on Blackstone Square, the Executive Committee of the Grand Army had erected a similar stand, provided with seats for 2000 people, and on Adams Square, where the procession was dismissed, was still another grand stand for spectators. The day, was favorable for marching, being cool and somewhat overcast. The parade, the largest that has occurred since the order was founded, comprised 35,000 veteran soldiers in line, representing 44 departments of the order, 600 naval veterans, 500 disabled veterans in carriages, and 4400 sons of veterans. They marched to the music of 134 bands, 124 drum corps, and 4 bugle corps, and made a remarkably fine and soldierly appearance.

On Wednesday the session of the National Encampment of the Grand Army of the Republic was opened in Music Hall, which was sumptuously decorated for the occasion. General Sherman sat in the centre of the hall among the Missouri delegation. General Alger's address brought out the interesting fact that the Grand Army of the Republic has at present the largest membership that it has possessed at any period in its twenty-four years' record, and is still increasing, the roster showing that on June 30, 1890, the total number of comrades in good and regular standing was 427,981, and the total membership borne on rolls was 458,230. Two new departments have been added, and the number of posts is 7175, an increase of 464 posts since the previous year. The number of deaths during the year, returned as 5476, can only be approximated, for many veterans who through feebleness fail to attend their posts are dropped from the rolls and die unreported The rapidly growing organization known as the Sons of Veterans already numbers 125,000 members.

In the afternoon meeting Colonel Wheelock G. Veazey was elected by unanimous vote to be the new Commander-in-Chief of the Grand Army of the Republic. General Richard A. Tobin, of Boston, was chosen Senior Vice-Commander-in-Chief, and First Sergeant George B. Creamer, of Baltimore, Junior Vice-Commander-in-Chief. At a subsequent session B. S. Stevens, of Cynthiana, Kentucky, was elected Surgeon-in-Chief, and Myron W. Reed, of Denver, Chaplain-in-Chief. Detroit was selected to be the headquarters of the next encampment. General Veazey named as his Adjutant-General Comrade Joseph H. Goulding, of Rutland, Vermont, and John Taylor, of Philadelphia, Quartermaster-General.

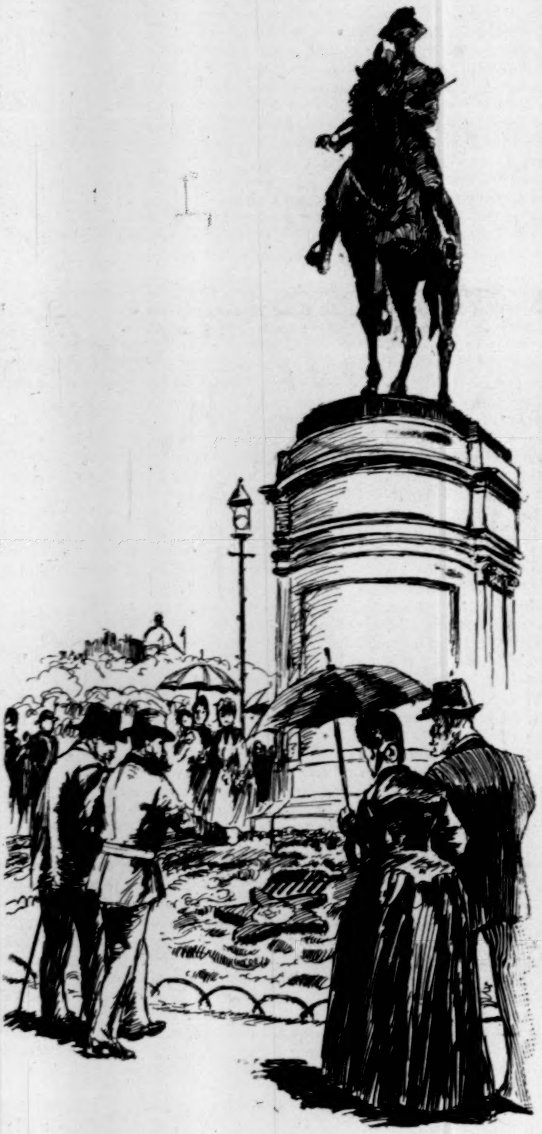
At the Thursday afternoon session resolutions were adopted favoring the removal of General Grant's remains from Riverside Park, New York, to Arlington, Virginia, provided it be in accordance with Mrs. Grant's wishes; thanking Congress for passing and the President for approving pension laws; favoring the making of Ford's Theatre in Washington a national museum for war mementos; and favoring the exemption of veterans from examination in classified civil service. By a vote of 174 to 160 the convention affirmed and endorsed the resolutions passed at the National Encampments at Columbus and Milwaukee, and the petitions of posts asking for the passage of a service pension bill. Appropriate resolutions were passed on the death of John Boyle O'Reilly, and after the installation of officers the encampment adjourned.

Colonel Veazey, the new Commander, is one of the Inter-State Commissioners. He is a native of Rockingham County, New Hampshire, and is fifty-three years of age. He was graduated from Dartmouth College and from the Albany Law School, and taking up his residence in Vermont, was admitted to the bar at Rutland in 1860. Upon the breaking out of the war he enlisted as a private, and in 1862 became Colonel of the Sixteenth Vermont Regiment. He served with great distinction throughout the war, and won credit for his brilliant fighting on many fields. On the muster out of his regiment Colonel Veazey returned to the practice of his profession, being associated in business for a while with Mr. Proctor, now Secretary of War. He was for ten years Judge of the Supreme Court of Vermont, and resigned that office in 1889 to accept the appointment of Inter-State Commerce Commissioner, a position that he now holds. He has held many honorable appointive and elective positions, is a public speaker, has been trustee of Dartmouth College since 1877, and received the degree of LL.D. from Dartmouth in 1887. He has been active in Grand Army matters for many years, having held the office of Post and of Department Commander and of Judge-Advocate-General.

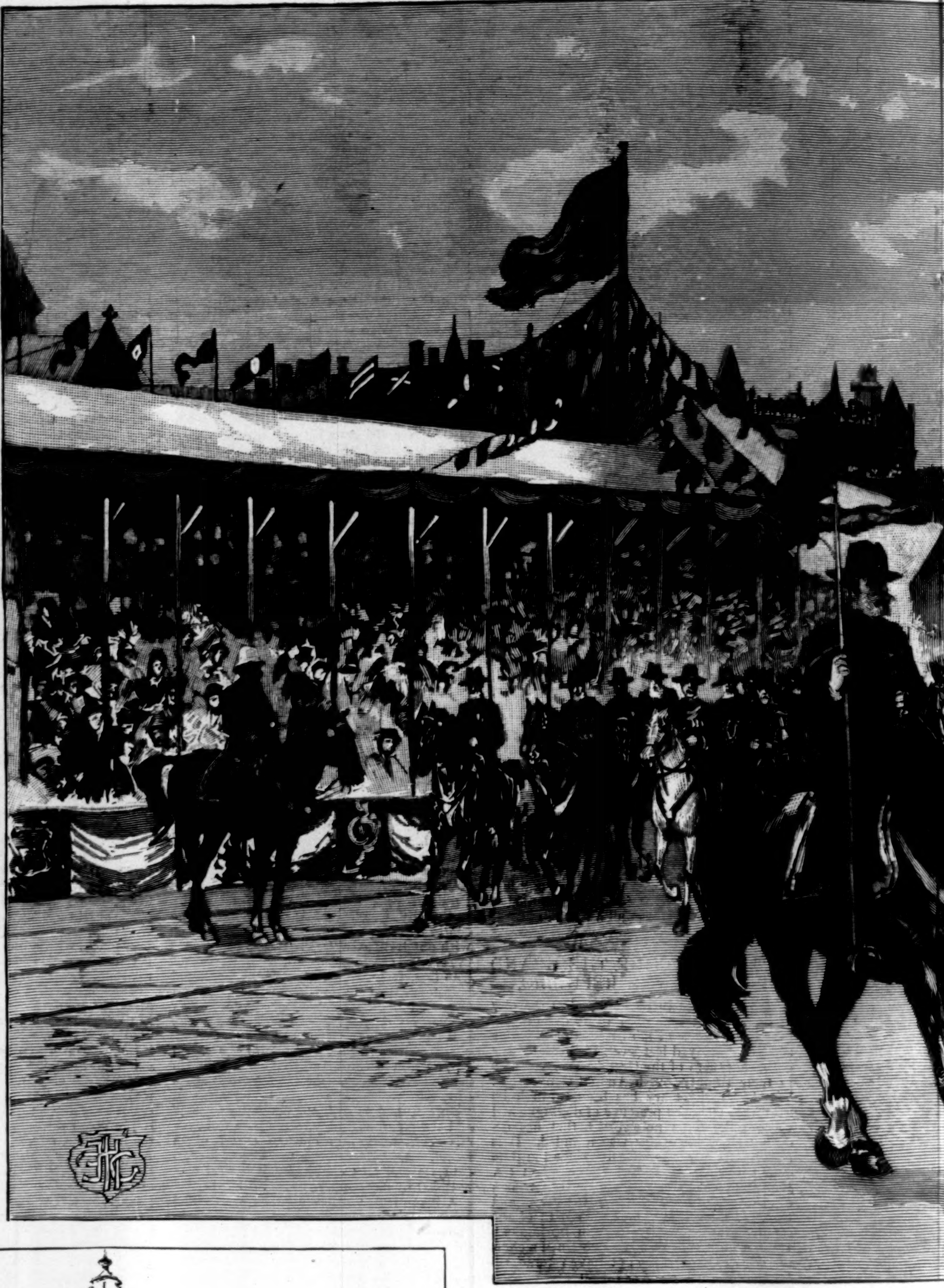
On August 13th the Eighth Annual Convention of the National Woman's Relief Corps opened in Tremont Temple, presided over by its President, Mrs. Annie Wittenmyer, of Philadelphia, who delivered an address. Fully thirty-five States were represented, and the galleries were crowded with members of the order. There were present as guests Secretary Rusk, Mrs. Alger, and Mrs. John A. Logan. The annual report shows that the membership of the corps has now reached 102,522 in number, that since it was founded in 1883 the organization has spent in charity or turned over to Grand Army posts $375,097, and that the amount of the relief fund in its treasury is $94,335. New departments, organized in Texas, North Dakota, and the Potomac, have been added to the list since last year. Mrs. Mary S. McHenry, of Iowa, was elected National President, and Mrs. Elizabeth A. Turner, of Massachusetts, Senior Vice-President.

Among the distinguished visitors to Boston on this occasion were the President and the Vice-President of the United States, Secretaries Noble, Proctor, and Rusk of the cabinet, General W. T. Sherman, General Daniel Sickles, Mrs. John A. Logan, Miss Clara Barton, and a great number of other persons famous in connection with the great civil war and the events following it. A noticeable feature of this occasion was the numerous colored men wearing the badges and buttons of the Grand Army of the Republic. No previous encampment of the Grand Army of the Republic has witnessed so large a gathering of colored veterans as attended this reunion from all parts of the country, and a considerable number of their Grand Army posts were represented in the parade.

On Thursday evening, August 14th, the day of the concluding session of the National Encampment and the Woman's Relief Corps Convention, a grand banquet, complimentary to the delegates and invited guests of the Twenty-fourth National Encampment, was given at Mechanics' Building, "Camp Sheridan." During the progress of the encampment, besides the large meetings, many smaller meetings were held in different halls about the city and its suburbs, with stirring addresses replete with reminiscences of the war, the visitors being entertained at the local posts with boundless hospitality. Many visitors departed on Thursday with the close of the session, but a large number remained to enjoy the excursions, clam-bakes, and other pleasures offered the visiting delegates by the local organizations.



FLORAL TRIBUTE BY THE CITY OF BOSTON—G. A. R. BADGE.



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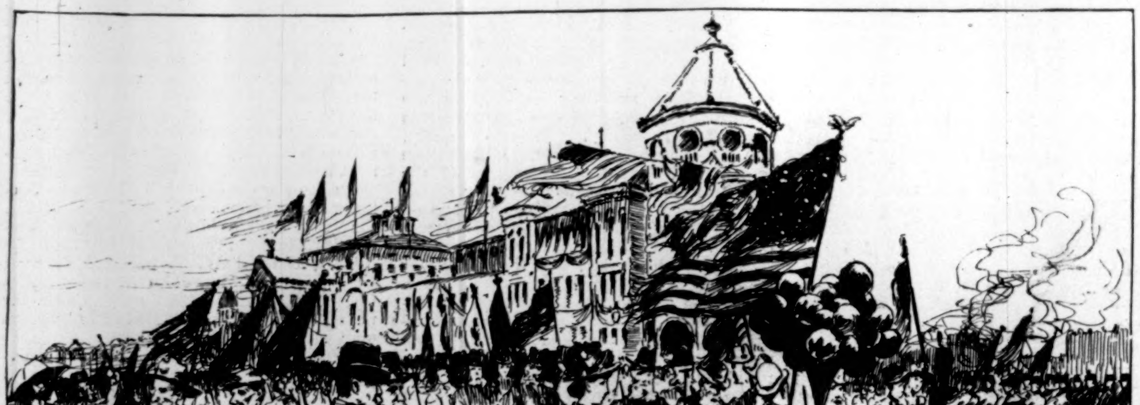
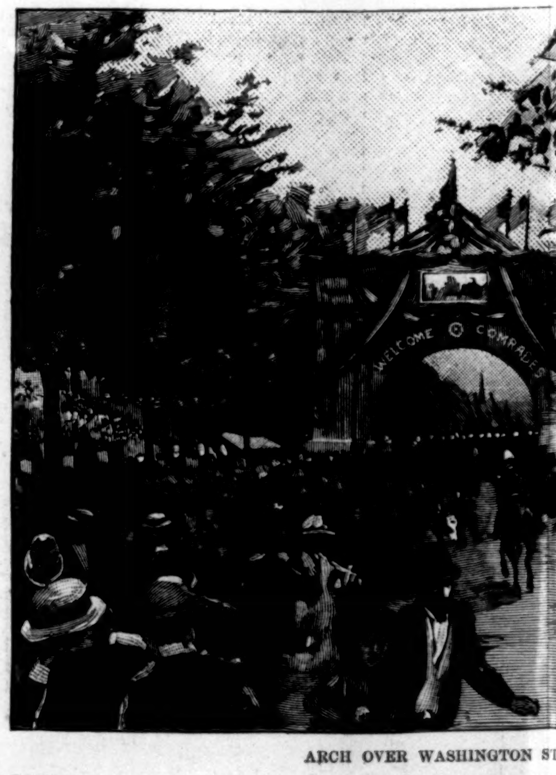


POSTS LEAVING CAMP PHIL SHERIDAN.



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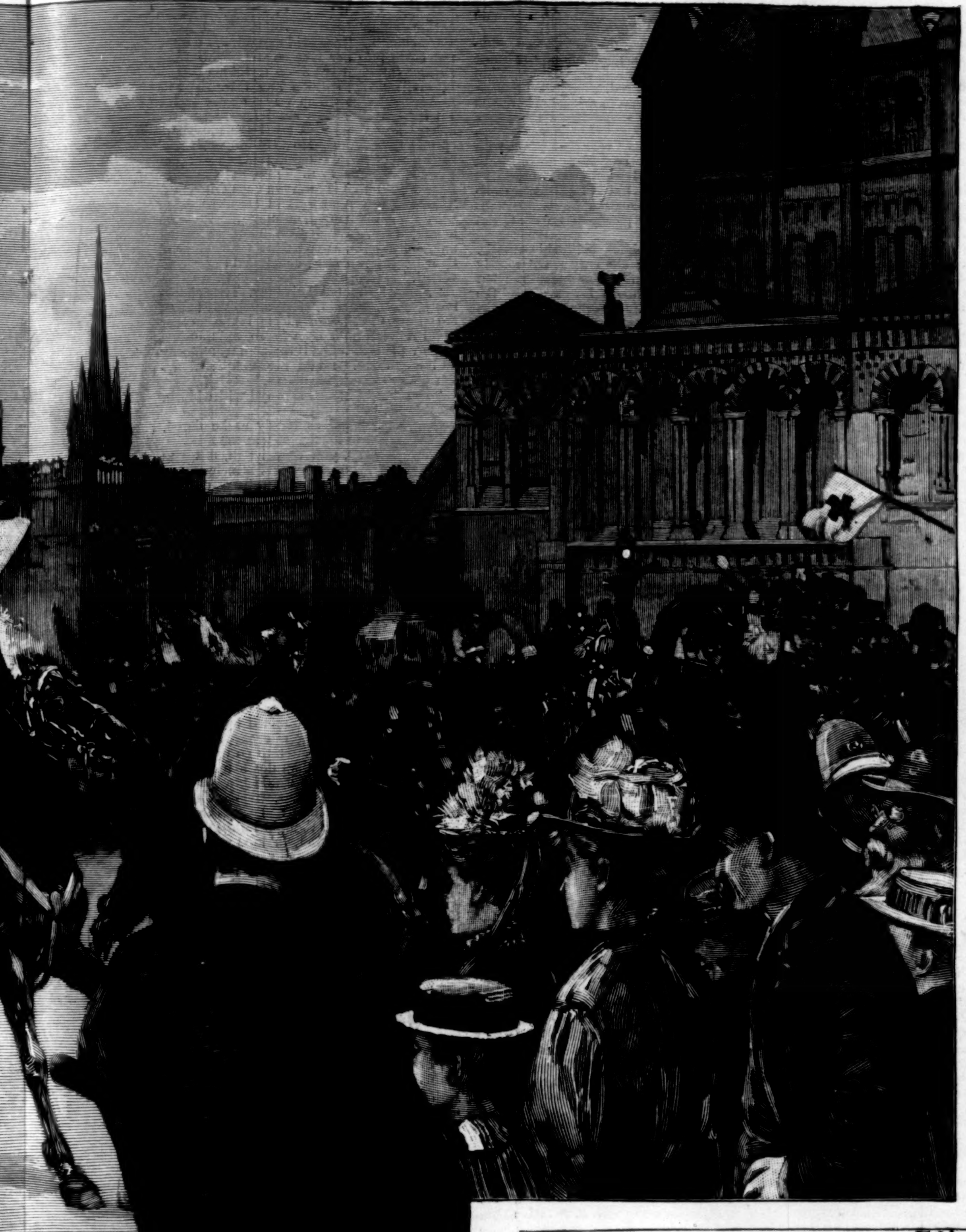

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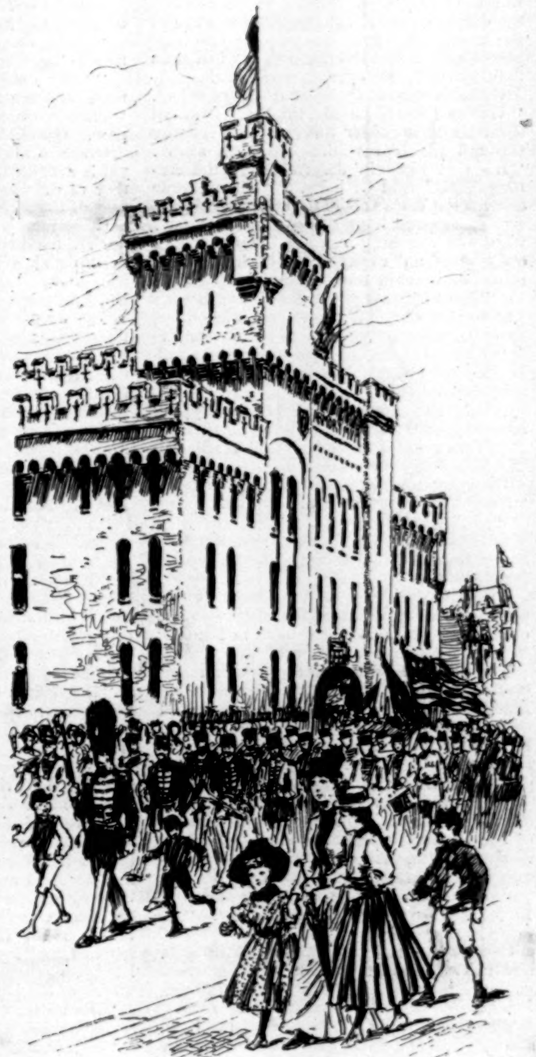
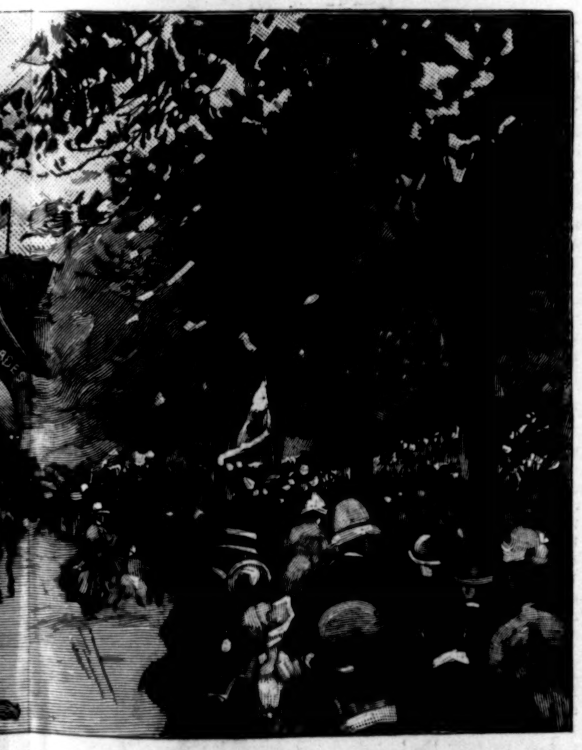
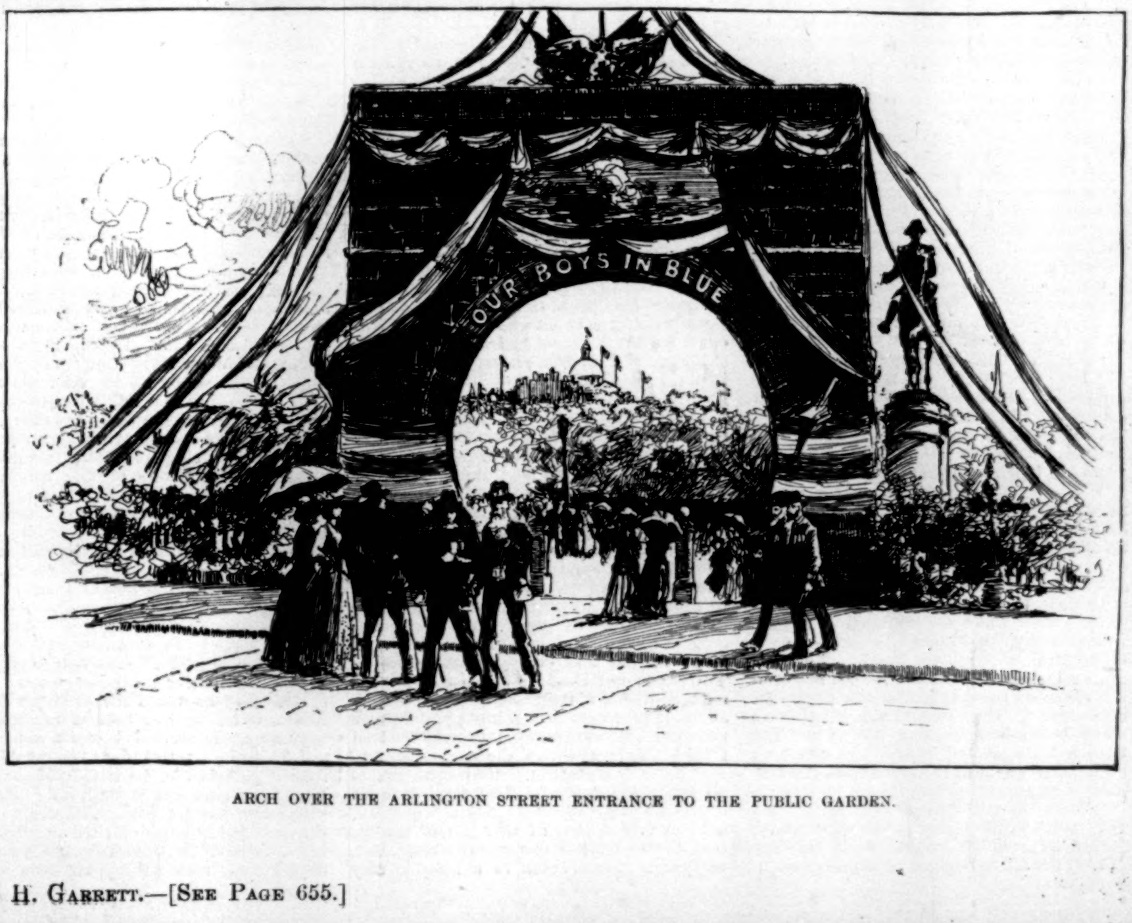


CAMP JOHN A. ANDREW.



N STREET AND GRAND STANDS.



ARCH OVER THE ARLINGTON STREET ENTRANCE TO THE PUBLIC GARDEN.

F THE REPUBLIC AT BOSTON.—Drawn by Edmund H. Garrett.—[See Page 655.]

ON GREENHOW HILL.

BY RUDYARD KIPLING.

"OHÉ ahmed din! Shafiz Ullah ahoo! Bahadur Khan, where are you? Come out of the tents, as I have done, and fight against the English. Don't kill your own kin! Come out to me!"

The deserter from a native corps was crawling round the outskirts of the camp, firing at intervals, and shouting invitations to his old comrades. Misled by the rain and the darkness, he came to the English wing of the camp, and with his yelping and rifle practice disturbed the men. They had been making roads all day, and were tired.

Ortheris was sleeping at Learoyd's feet. "Wot's all that?" he said, thickly. Learoyd snored, and a Snider bullet ripped its way through the tent wall. The men swore. "It's that bloomin' deserter from the Aurangabadis," said Ortheris. "Git up, some one, an' tell 'im 'e's come to the wrong shop."

"Go to sleep, little man," said Mulvaney, who was steaming nearest the door. "I can't arise an' expaytiate wid him. 'Tis rainin' entrenchin' tools outside."

"'Tain't because you bloomin' can't. It's 'cause you bloomin' won't, ye long, limp, lousy, lazy beggar, you! 'Ark to 'im 'owlin'!"

"Wot's the good of argifying? Put a bullet into the swine! 'E's keepin' us awake!" said another voice.

A subaltern shouted angrily, and a dripping sentry whined from the darkness:

"'Tain't no good, sir. I can't see 'im. 'E's 'idin' somewhere down 'ill."

Ortheris tumbled out of his blanket. "Shall I try to get 'im, sir?" said he.

"No," was the answer; "lie down. I won't have the whole camp shooting all round the clock. Tell him to go and pot his friends."

Ortheris considered for a moment. Then, putting his head under the tent wall, he called, as a 'bus conductor calls in a block: "'Igher up, there! 'Igher up!"

The men laughed, and the laughter was carried down wind to the deserter, who, hearing that he had made a mistake, went off to worry his own regiment half a mile away. He was received with shots, for the Aurangabadis were very angry with him for disgracing their colors.

"Ah, that's all right," said Ortheris, withdrawing his head as he heard the hiccough of the Sniders in the distance. "S'elp me Gawd, though, that man's not fit to live—messin' with my beauty-sleep this way."

"Go out and shoot him in the morning, then," said the subaltern, incautiously. "Silence in the tents now. Get your rest, men."

Ortheris lay down with a happy little sigh, and in two minutes there was no sound except the rain on the canvas and the all-embracing and elemental snoring of Learoyd.

The camp lay on a bare ridge of the Himalayas, and for a week had been waiting for a flying column to make connection. The nightly rounds of the deserter and his friends had become a nuisance.

In the morning the men dried themselves in hot sunshine and cleaned their grimy accoutrements. The native regiment was to take its turn of road-making that day while the Old Regiment loafed.

"I'm goin' to lay for a shot at that man," said Ortheris, when he had finished washing out his rifle. "'E comes up the watercourse every evenin' about five o'clock. If we go an' lie out on the north 'ill a bit this afternoon we'll get 'im."

"You're a blood-thirsty little mosquito," said Mulvaney, blowing blue clouds into the air. "But I suppose I will have to come wid you. Fwhere's Jock?"

"Gone out with the Mixed Pickles, 'cause 'e thinks 'isself a bloomin' marksman," said Ortheris, with scorn.

The "Mixed Pickles" were a detachment of picked shots, generally employed in clearing spurs of hills when the enemy were too impertinent. This taught the young officers how to handle men, and did not do the enemy much harm. Mulvaney and Ortheris strolled out of camp, and passed the Aurangabadis going to their road-making.

"You've got to sweat to-day," said Ortheris, genially. "We're goin' to get your man. You didn't knock 'im out last night by any chanst, any of you?"

"No. The pig went away mocking us. I had one shot at him," said a private. "He's my cousin, and *I* ought to have cleared our dishonor. But good luck to you."

They went cautiously to the north hill, Ortheris leading, because, as he explained, "this is a long-range show, an' I've got to do it." His was an almost passionate devotion to his rifle, which, by barrack-room report, he was supposed to kiss every night before turning in. Charges and scuffles he held in contempt, and when they were inevitable, slipped between Mulvaney and Learoyd, bidding them to fight for his skin as well as their own. They never failed him. He trotted along, questing like a hound on a broken trail, through the wood of the north hill. At last he was satisfied, and threw himself down on the soft pine-needle slope that commanded a clear view of the watercourse and a brown bare hill-side beyond it. The trees made a scented darkness in which an army corps could have hidden from the sunglare without.

"'Ere's the tail o' the wood," said Ortheris. "'E's got to come up the watercourse, 'cause it gives 'im cover. We'll lay 'ere. 'Tain't not arf so bloomin' dusty neither."

He buried his nose in a clump of scentless white violets. No one had come to tell the flowers that the season of their strength was long past, and they had bloomed merrily in the twilight of the pines.

"This is something like," he said, luxuriously. "Wot a 'evinly clear drop for a bullet acrost! How much d'you make it, Mulvaney?"

"Seven hundher. Maybe a trifle less, bekaze the air's so thin."

Wop! wop! wop! went a volley of musketry on the rear face of the north hill.

"Curse them Mixed Pickles, firin' at nothin'! They'll scare arf the country."

"Thry a sightin' shot in the middle of the row," said Mulvaney, the man of many wiles. "There's a red rock yonder he'll be sure to pass. Quick!"

Ortheris ran his sight up to six hundred yards and fired. The bullet threw up a feather of dust by a clump of gentians at the base of the rock.

"Good enough!" said Ortheris, snapping the scale down. "You snick your sights to mine or a little lower. You're always firin' high. But remember, first shot to me. Oh, Lordy but it's a lovely afternoon!"

The noise of the firing grew louder, and there was a tramping of men in the wood. The two lay very quiet, for they knew that the British soldier is desperately prone to fire at anything that moves or calls. Then Learoyd appeared, his tunic ripped across the breast by a bullet, looking ashamed of himself. He flung down on the pine needles, breathing in snorts.

"One o' them —— gardeners o' th' Pickles," said he, fingering the rent. "Firin' to th' right flank when he knowed I was there. If I knew who he was I'd 'a' rippen the hide offan him. Look at ma tunic!"

"That's the spishil trustability av a marksman. Train him to hit a fly wid a stiddy rest at seven hundher, an' he'll loose on anything he sees or hears up to th' mile. You're well out av that fancy-firin' gang, Jock. Stay here."

"Bin firin' at the bloomin' wind in the bloomin' tree-tops," said Ortheris, with a chuckle. "I'll show you some firin' later on."

They wallowed in the pine needles, and the sun warmed them where they lay. The Mixed Pickles ceased firing, and returned to camp, and left the wood to a few scared apes. The watercourse lifted up its voice in the silence, and talked foolishly to the rocks. Now and again the dull thump of a blasting charge three miles away told that the Aurangabadis were in difficulties with their road-making. The men smiled as they listened, and lay still, soaking in the warm leisure. Presently Learoyd, between the whiffs of his pipe:

"Seems queer—about 'im yonder. Desertin' an' all."

"'E'll be a bloomin' site queerer when I've done with 'im," said Ortheris. They were talking in whispers, for the stillness of the wood and the desire of slaughter lay heavy upon them.

"I make no doubt he had his reasons for desertin'; but, my faith! I make less doubt ivry man has good reason for killin' him," said Mulvaney.

"Happen there was a lass tewed up wi' it. Men do more than more for th' sake of a lass."

"They make most av us 'list. They've no manner av right to make us desert."

"Ay, they make us 'list, or their fathers do," said Learoyd, softly, his helmet over his eyes.

Ortheris's brows contracted savagely. He was watching the valley. "If it's a girl I'll shoot the beggar twice over, an' second time for bein' a fool. You're blasted sentimental all of a sudden. Thinkin' o' your last near shave?"

"Nay, lad; ah was but thinkin' o' what had happened."

"An' fwhat has happened, ye lumberin' child av calamity, that you're lowing like a cow-calf at the back av the pasture, an' suggestin' invidious excuses for the man Stanley's goin' to kill. Ye'll have to wait another hour yet, little man. Spit it out, Jock, an' bellow melojus to the moon. It takes an earthquake or a bullet graze to fetch aught out av you. Discourse, Don Juan! The a-moors of Lotharius Learoyd! Stanley, kape a rowlin' rig'mental eye on the valley."

"It's along o' yon hill there," said Learoyd, watching the bare sub-Himalayan spur that reminded him of his Yorkshire moors. He was speaking more to himself than his fellows. "Ay," said he, "Rumbolds Moor stands up ower Skipton town, an' Greenhow Hill stands up ower Pately Brig. I reckon you've never heeard tell o' Greenhow Hill, but yon bit o' bare stuff if there was nobbut a white road windin' is like ut—strangely like. Moors an' moors—moors wi' never a tree for shelter, an' gray houses wi' flag-stone rooves, and pewits cryin', an' a windhover goin' to and fro just like these kites. And cold! a wind that cuts you like a knife. You could tell Greenhow Hill folk by the red-apple color o' their cheeks an' nose tips, an' their blue eyes driven into pin points by the wind. Miners mostly, burrowin' for lead i' th' hill-sides, followin' the trail of th' ore vein same as a field-rat. It was the roughest minin' I ever seen. Yo'd come on a bit o' creakin' wood windlass like a well-head, an' you was let down i' th' bight of a rope, fendin' yoursen off the side wi' one hand, carryin' a candle stuck in a lump o' clay with t'other, an' clickin' hold of a rope with t'other hand."

"An' that's three of them," said Mulvaney. "Must be a good climate in those parts."

Learoyd took no heed.

"An' then yo' came to a level, where you crept on your hands and knees through a mile o' windin' drift, an' you come out into a cave-place as big as Leeds Town-hall, with a engine pumpin' water from workin's 'at went deeper still. It's a queer country, let alone minin', for the hill is full of those natural caves, an' the rivers an' the becks drops into what they call pot-holes, an' come out again miles away."

"Wot was you doin' there?" said Ortheris.

"I was a young chap then, an' mostly went wi' osses, leadin' coal and lead ore; but at th' time I'm tellin' on I was drivin' the wagon team i' the big sumph. I didn't belong to that country-side by rights. I went there because of a little difference at home, an' at fust I took up wi' a rough lot. One night we'd been drinkin', an' I must ha' hed more than I could stand, or happen th' ale was none so good. Though i' them days, by for God, I never seed bad ale." He flung his arms over his head, and gripped a vast handful of the white violets. "Nah," said he, "I never seed the ale I could not drink, the bacca I could not smoke, nor the lass I could not kiss. Well, we mun have a race home, the lot on us. I lost all th' others, an' when I was climbin' ower one of them walls built o' loose stones, I comes down into the ditch, stones and all, an' broke my arm. Not as I knawed much about it, for I fell on th' back of my head, an' was knocked stupid like. An' when I come to mysen it were mornin', an' I were lyin' on the settle i' Jesse Roantree's house-place, an' 'Liza Roantree was settin' sewin'. I ached all ower, and my mouth were like a limekiln. She gave me a drink out of a china mug wi' gold letters—'A Present from Leeds'—as I looked at many and many a time at after. 'Yo're to lie still while Dr. Warbottom comes, because your arm's broken, and father has sent a lad to fetch him. He found yo' when he was goin' to work, an' carried you here on his back,' sez she. 'Oa!' sez I; an' I shet my eyes, for I felt ashamed o' mysen. 'Father's gone to his work these three hours, and he said he'd tell 'em to get somebody to drive the tram.' The clock ticked an' a bee comed in the house, an' they rung i' my head like millwheels. An' she give me another drink, an' settled the pillow. 'Eh but yo're young to be getten drunk an' such like, but yo' won't do it again, will yo'?' 'Noa,' sez I, 'I wouldn't, if yo'd but stop they millwheels clatterin'.'"

"Faith it's a good thing to be nursed by a woman when you're sick," said Mulvaney. "Dirt cheap at the price av twinty broken heads."

Ortheris turned to frown across the valley. He had not been nursed by many women in his life.

"An' then Dr. Warbottom comes ridin' up, an' Jesse Roantree along with 'im. He was a high-larned doctor, but he talked wi' poor folk same as theirsens. 'What's ta bin agaate on naa?' he sings out. 'Brekkin' tha thick head?' An' he felt me all over. 'That's none broken. Tha's nobbut knocked a bit sillier than ordinary, an' that's daaft eneaf.' An' soa he went on, callin' me all the names he could think on, but settin' my arm wi' Jesse's help as careful as could be. 'Yo' mun let the big oaf bide here a bit, Jesse,' he says, when he hed strapped me up an' given me a dose o' physic; 'an' you an' 'Liza will tend him, though he's scarcelins worth the trouble. An' tha'll lose tha work,' sez he, 'an' tha'll be upon th' Sick Club for a couple o' months an' more. Doesn't tha think tha's a fool?'"

"But whin was a young man, high or low, the other av a fool, I'd like to know?" said Mulvaney. "Sure folly's the only safe way to wisdom, for I've thried it."

"Wisdom!" grinned Ortheris, scanning his comrades with uplifted chin. "You're bloomin' Solomons, you two, ain't you?"

Learoyd went calmly on with a steady eye, like an ox chewing the cud. "And that was how I comed to know 'Liza Roantree. There's some tunes as she used to sing—an' she were always singin'—that fetches Greenhow Hill before my eyes as fair as yon brow across there. And she would learn me to sing bass, and I was to go to th' chapel wi' 'em, where Jesse and she led the singin', th' old man playin' the fiddle. He was a strange chap, old Jesse, fair mad wi' music, an' he made me promise to learn the big fiddle when my arm was better. It belonged to him, and it stood up in a big case alongside o' th' eight-day clock, but Willie Satterthwaite, as played it in the chapel, had getten deaf as a door-post, and it vexed Jesse, as he had to rap him ower his head wi' th' fiddle-stick to make him give ower sawin' at th' right time.

"But there was a black drop in it all, an' it was a man in a black coat that brought it. When th' Primitive Methodist preacher came to Greenhow he would always stop wi' Jesse Roantree, an' he laid hold of me from th' beginning. It seemed I wor a soul to be saved, and he meaned to do it. At th' same time I jealoused 'at he were keen o' savin' 'Liza Roantree's soul as well, and I could ha' killed him many a time. An' this went on till one day I broke out, an' borrowed th' brass for a drink from 'Liza. After fower days I come back wi' my tail between my legs, just to see 'Liza again. But Jesse were at home an' th' preacher—th' Reverend Amos Barraclough. 'Liza said naught, but a bit o' red come into her face as were white of a regular thing. Says Jesse, tryin' his best to be civil: 'Nay, lad, it's like this. You've getten to choose which way it's goin' to be. I'll ha' nobody across ma door-step as goes a-drinkin', an' borrows my lass's money to spend i' their drink. Ho'd tha tongue, 'Liza,' sez he, when she wanted to put in a word 'at I were welcome to th' brass, an' she were none afraid that I wouldn't pay it back. Then the Reverend cuts in, seein' as Jesse were losin' his temper, an' they fair beat me among them. But it were 'Liza, as looked an' said naught, as did more than either o' their tongues, an' soa I concluded to get converted."

"Fwhat!" shouted Mulvaney. Then checking himself, he said, softly: "Let be! Let be! Sure the Blessed Virgin is the mother of all religion an' most women, an' there's a dale av piety in a girl if the men would only let it stay there. I'd ha' been converted myself under the circumstances."

"Nay, but," pursued Learoyd, with a blush, "I meaned it."

Ortheris laughed as loudly as he dared, having regard to his business at the time.

"Ay, Ortheris, you may laugh, but you didn't know yon preacher Barraclough—a little white-faced chap wi' a voice as ud wile a bird off an a bush, and a way o' layin' hold of folks as made them think they'd never had a live man for a friend before. You never saw him, an'—an'—you never seed 'Liza Roantree—never seed 'Liza Roantree.... Happen it was as much 'Liza as th' preacher and her father, but anyways they all meaned it, and I was fair 'shamed o' mysen, an' so I become what they called a changed character. And when I think on't it's hard to believe as yon chap going to prayer-meetin's, chapel, and class-meetings were me. But I never had naught to say for mysen, though there was a deal o' shoutin', and old Sammy Strother, as were almost clemmed to death and doubled up with the rheumatics, would sing out 'Joyful! joyful!' and 'at it were better to go up to heaven in a coal basket than down to hell i' a coach an' six. And he would put his poor old claw on my shoulder, sayin': 'Doesn't tha feel it, tha great lump? Doesn't tha feel it?' An' sometimes I thought I did, and then again I thought I didn't, an' how was that?"

"The iverlastin' nature av mankind," said Mulvany. "An', furthermore, I misdoubt you were built for the Primitive Methodians. They're a new corps anyways. I hold by the Ould Church, for she's the mother of them all—ay, an' the father too. I like her bekaze she's most remarkable regimental in her fittings. I may die in Honolulu, Nova Zambra, or Cape Cayenne, but wherever I die, me bein' fwhat I am, an' a priest handy, I go under the same orders an' the same words an' the same unction as tho' the Pope himself come down from the dome av St. Peter's to see me off. There's neither High nor Low, nor Broad nor Deep, nor Betwixt nor Between with her, an' that's what I like. But mark you, she's no manner av Church for a wake man, bekaze she takes the body and the soul av him, onless he has his proper work to do. I remember when my father died that was three months comin' to his grave. Begad he'd ha' sold the shebeen above our heads for ten minutes' quittance of purgathory. An' he did all he could. That's why I say it takes a strong man to deal with the Ould Church, an' for that very reason you'll find so many women go there. An' that Sam's a conundrum."

"Wot's the use o' worritin' 'bout these things?" said Ortheris. "You're bound to find all out quicker nor you want to, any'ow." He jerked the cartridge out of the breech-block into the palm of his hand. "'Ere's my chaplain," he said, and made the venomous black-headed bullet bow like a marionette. "'E's goin' to teach a man all about which is which an' wot's true after all, before sundown. But wot 'appened after that, Jock?"

"There was one thing they boggled at, and almost shut th' gate i' my face for, and that were my dog Blast, th' only one saved out o' a litter o' pups as was blowed up when a keg o' minin' powder loosed off in th' store-keeper's hut. They liked his name no better than his business, which was fightin' every dog he comed across; a rare good dog, wi' spots o' black and pink on his face, one ear gone, and lame o' one side wi' being driven in a basket through an iron roof a matter of half a mile.

"They said I mun give him up 'cause he were worldly and low; and would I let mysen be shut out of heaven for the sake on a dog? 'Nay,' says I, 'if th' door isn't wide enough for th' pair on us, we'll stop outside, for we'll none be parted.' And th' preacher spoke up for Blast, as had a likin' for him from th' first—I reckon that was why I come to like th' preacher—and wouldn't hear o' changin' his name into Bless, as some o' them wanted. So th' pair on us became reg'lar chapel members. But it's hard for a young chap o' my build to cut traces from th' world, th' flesh, an' th' devil all uv a heap. Yet I stuck to it for a long time, while th' lads as used to stand about th' town-end an' lean ower th' bridge, spittin' into th' beck, of a Sunday, would call after me, 'Sitha, Learoyd, when's ta baan to preach, 'cause we're comin' to hear tha.' 'Ho'd tha jaw. He hasn't getten th' white choaker on ta morn,' another lad would say, and I had to double my fists hard i' th' bottom of my Sunday coat, and say to mysen, 'If 'twere Monday and I warn't a member o' th' Primitive Methodists, I'd leather all th' lot of yond.' That was th' hardest of all—to know that I could fight, and I mustn't fight."

Sympathetic grunts from Mulvaney.

"So what wi' singin', practisin', and class-meetin's, and th' big fiddle, as he made me take between my knees, I spent a deal o' time i' Jesse Roantree's house-place. But often as I was there, th' preacher fared to me to go oftener, and both th' old and th' young woman were pleased to have him. He lived i' Pately Brigg, as were a goodish step off, but he come. He come all the same. I liked him as well or better as any man I'd ever seen i' one way, and yet I hated him wi' all my heart i' t'other, and we watched each other like cat and mouse, but civil as you please, for I was on my best behavior, and he was that fair and open that I was bound to be fair with him. Rare good company he was if I hadn't wanted to wring his cliver little neck half of the time. Often and often when he was goin' from Jesse's I'd set him a bit on the road."

"See 'im 'ome, you mean?" said Ortheris.

"Ay. It's a way we have i' Yorkshire o' seein' friends off. Yon was a friend as I didn't want to come back, and he didn't want me to come back neither, and so we'd walk together towards Pately, and then he'd set me back again, and there we'd be wal two o'clock i' th' mornin' settin' each other to an' fro like a blasted pair o' pendulums 'twixt hill and valley long after th' light had gone out i' 'Liza's window, as both on us had been looking at, pretendin' to watch the moon."

"Ah!" broke in Mulvaney, "ye'd no chanst against the maraudin' psalm-singer. They'll take the airs an' the graces instid av the man nine times out av ten, an' they only find the blunder later—the wimmen."

"That's just where yo're wrong," said Learoyd, reddening under the freckled tan of his cheek. "I was th' first wi' 'Liza, an' yo'd think that were enough. But th' parson were a steady-gaited sort o' chap, and Jesse were strong o' his side, and all th' women i' the congregation dinned it to 'Liza 'at she were fair fond to take up wi' a wastrel ne'er-do-weel like me, as was scarcelins respectable and a fighting dog at his heels. It was all very well for her to be doing me good and saving my soul, but she must mind as she didn't do herself harm. They talk o' rich folk bein' stuck up an' genteel, but for cast-iron pride o' respectability there's naught like poor chapel folk. It's as cold as th' wind o' Greenhow Hill—ay, and colder, for 'twill never change. And now I come to think on it, one o't' strangest things I know is 'at they couldn't abide th' thought o' soldiering. There's a vast o' fightin' i' th' Bible, and there's a deal of Methodists i' th' army; but to hear chapel folk talk yo'd think that soldierin' were next door, an' t'other side, to hangin'. I' their meetin's all their talk is o' fightin'. When Sammy Strother were stuck for summat to say in his prayers, he'd sing out, 'The sword o' th' Lord and o' Gideon.' They were allus at it about puttin' on th' whole armor o' righteousness, and fightin' the good fight o' faith. And then atop o' 't all they held a prayer-meetin' ower a young chap as wanted to 'list, and nearly deafened him till he picked up his hat and fair ran away. And they'd tell tales in th' Sunday-school o' bad lads as had been thumped and brayed for birdnesting o' Sundays and playing truant o' week-days, and how they took to wrestling, dog-fightin', rabbit-runnin', and drinking, till at last, as if 'twere a hepitaph on a gravestone, they damned him across th' moors wi', an' then he went and 'listed for a soldier, an' they'd all fetch a deep breath, and throw up their eyes like a hen drinkin'."

"Fwhy is it?" said Mulvaney, bringing down his hand on his thigh with a crack. "In the name av God, fwhy is it? I've seen it tu. They cheat an' they swindle an' they lie an' they slander, an' fifty things fifty times worse; but the last an' the worst by their reckonin' is to serve the Widdy honest. It's like the talk av childer—seein' things all round."

"Plucky lot of fightin' good fights of whatsername they'd do if we didn't see they had a quiet place to fight in. And such fightin' as theirs is! Cats on the tiles. T'other callin' to which to come on. I'd give a month's pay to get some o' them broad-backed beggars in London sweatin' through a day's road-makin' an' a night's rain. They'd carry on a deal afterwards—same as we're supposed to carry on. I've bin turned out of a measly arf-license pub down Lambeth way, full o' greasy kebmen, 'fore now," said Ortheris, with an oath.

"Maybe you were dhrunk," said Mulvaney, soothingly.

"Worse nor that. The Forders were drunk. I was wearin' the Queen's uniform."

"I'd no particular thought to be a soldier i' them days," said Learoyd, still keeping his eye on the bare hill opposite, "but this sort o' talk put it i' my head. They was so good, th' chapel folk, that they tumbled ower t'other side. But I stuck to it for 'Liza's sake, specially as she was learning me to sing the bass part in a horotorio as Jesse were getting up. She sung like a throstle hersen, and we had practisin's night after night for a matter of three months."

"I know what a horotorio is," said Ortheris, pertly. "It's a sort of chaplain's sing-song, words all out of the Bible, and hullabaloojah choruses."

"Most Greenhow Hill folks played some instrument or other, an' they all sung so you might have heard them miles away, and they were so pleased wi' the noise they made they didn't fair to want anybody to listen. The preacher sung high seconds when he wasn't playin' th' flute, an' they set me, as hadn't got far wi' th' big fiddle, again' Willie Satterthwaite to jog his elbow when he had to get a'gate playin'. Old Jesse was happy if ever a man was, for he were th' conductor an' th' first fiddle an' th' leading singer, beatin' time wi' his fiddle-stick, till at times he'd rap with it on the table, and cry out, 'Now you mun all stop; it's my turn.' And he'd face round to his front, fair sweating wi' pride, to sing the tenor solos. But he were grandest i' th' choruses, waggin' his head, flinging his arms round like a windmill, and singin' hisself black in the face. A rare singer were Jesse.

"Yo' see, I was not o' much account wi' 'em all exceptin' to Eliza Roantree, and I had a deal o' time settin' quiet at meetings and horotorio practises to hearken their talk, and if it were strange to me at beginnin', it got stranger still at after, when I was shut on it, and could study what it meaned.

"Just after th' horotorios come off, 'Liza, as had allus been weakly like, was took very bad. I walked Dr. Warbottom's horse up and down a deal of times while he were inside, where they wouldn't let me go, though I fair ached to see her.

"'She'll be better i' noo, lad—better i' noo,' he used to say. 'Tha mun ha' patience.' Then they said if I was quiet I might go in, and th' Reverend Amos Barraclough used to read to her, lyin' propped up among th' pillows. Then she began to mend a bit, and they let me carry her on to th' settle, and when it got warm again she went about same as afore. Th' preacher and me and Blast was a deal together i' them days, and i' one way we was rare good comrades. But I could ha' stretched him time and again with a good will. I mind one day he said he would like to go down into th' bowels o' th' earth, and see how th' Lord had builded th' framework o' th' everlastin' hills. He was one of them chaps as had a gift o' sayin' things. They rolled off the tip of his clever tongue same as Mulvaney here, as would ha' made a rare good preacher if he had nobbut given his mind to it. I lent him a suit o' miner's kit as almost buried th' little man, and his white face down i' th' coat collar and hat flap looked like the face of a boggart, and he cowered down i' th' bottom o' the wagon. I was drivin' a tram as led up a bit of an incline up to th' cave where th' engine was pumpin', and where th' ore was brought up and put into th' wagons as went down o' themselves, me puttin' th' brake on and th' horses a-trottin' after. Long as it was daylight we were good friends, but when we got fair into th' dark, and could nobbut see th' day shinin' at the hole like a lamp at a street end, I feeled downright wicked. My religion dropped all away from me when I looked back at him as were always comin' between me and 'Eliza. The talk was 'at they were to be wed when she got better, an' I couldn't get her to say yes or nay to it. He began to sing a hymn in his thin voice, and I came out wi' a chorus that was all cussin' an' swearin' at my horses, an' I began to know how I hated him. He were such a little chap too. I could drop him wi' one hand down Garstang's Copper hole—a place where th' beck slithered ower th' edge on a rock, and fell wi' a bit of a whisper into a pit as rope i' Greenhow could plumb."

Again Learoyd rooted up the innocent violets. "Ay, he should see th' bowels o' th' earth an' never naught else. I could take him a mile or two along th' drift, and leave him wi' his candle doused to cry hallelujah, wi' none to hear him and say amen. I was to lead him down th' ladder way to th' drift where Jess Roantree was workin', and why shouldn't he slip on th' ladder, wi' my feet on his fingers till they loosed grip, and I put him down wi' my heel? If I went fust down th' ladder I could click hold on him and chuck him over my head, so as he should go squshin' down the shaft, breakin' his bones at ev'ry timberin', as Bill Appleton did when he was fresh, and hadn't a bone left when he wrought to th' bottom. Niver a blasted leg to walk from Pately. Niver an arm to put round 'Liza Roantree's waist. Niver no more!—niver no more!"

The thick lips curled back over the yellow teeth, and that flushed face was not pretty to look upon. Mulvaney nodded sympathy, and Ortheris, moved by his comrade's passion, brought up the rifle to his shoulder, and searched the hill-side for his quarry, muttering some ribaldry about a sparrow, a spout, and a thunder-storm. The voice of the watercourse supplied the necessary small-talk till Learoyd picked up his story.

"But it's none so easy to kill a man like yon. When I'd given up my horses to th' lad as took my place, and I was showin' th' preacher th' workin's, shoutin' into his ear across th' clang o' th' pumpin' engines, I saw he was afraid o' naught; and when the lamp-light showed his black eyes I could feel as he was masterin' me again. I were no better nor Blast chained up short and growlin' i' th' depths of him while a strange dog went safe past.

"'Th'art a coward and a fool,' I said to mysen; an' I wrestled i' my mind again' him till, when we come to Garstang's Copper hole, I laid hold o' th' preacher, and lifted him up ower my head and held him into the darkest on it. 'Now, lad,' I says, 'it's to be one or t'other on us—thee or me—for 'Liza Roantree. Why, isn't thee afraid for thysen?' I says, for he were still i' my arms as a sack. 'Nay; I'm but afraid for thee, my poor lad, as knows naught,' says he. I set him down on th' edge, an' th' beck run stiller, an' there was no more buzzin' in my head like when th' bee come through th' window o' Jesse's house. 'What dost tha mean?' says I.

"'I've often thought as thou ought to know,' says he, 'but 'twas hard to tell thee. 'Liza Roantree's for neither on us, nor for nobody o' this earth. Dr. Warbottom says, and he knows her, and her mother before her, that she is in a decline, and she cannot live six months longer. He's known it for many a day. Steady, John! Steady!' says he. And that weak little man pulled me further back and set me again' him, and talked it all over quiet and still, me turnin' a bunch o' candles in my hand, and counting them ower and ower again as I listened. A deal on it were th' regular preachin' talk, but there were a vast lot as made me begin to think as he were more of a man than I'd ever given him credit for, till I were cut as deep for him as I were for mysen.

"Six candles we had, and we crawled and climbed all that day while they lasted, and I said to mysen, ''Liza Roantree hasn't six months to live.' And when we came into th' daylight again we were like dead men to look at, an' Blast come behind us without so much as waggin' his tail. When I saw 'Liza again she looked at me a minute and says: 'Who's telled tha? For I see tha knows.' And she tried to smile as she kissed me, and I fair broke down.

"You see, I was a young chap i' them days, and had seen naught o' life, let alone death, as is allus a-waitin'. She telled me as Dr. Warbottom said as Greenhow air was too keen, and they were goin' to Bradford, to Jesse's brother David, as worked i' a mill, and I mun hold up like a man and a Christian, and she'd pray for me well; and they went away, and the preacher that same back end o' th' year were appointed to another circuit, as they call it, and I were left alone on Greenhow Hill.

"I tried, and I tried hard, to stick to th' chapel, but 'tweren't th' same thing at after. I hadn't 'Liza's voice to follow i' th' singin', nor her eyes a-shinin' acrost their heads. And i' th' class-meetings they said as I mun have some experiences to tell, and I hadn't a word to say for mysen.

"Blast and me moped a good deal, and happen we didn't behave ourselves over well, for they dropped us, and wondered how ever they'd come to take us up. I can't tell how we got through th' time, while i' th' winter I gave up my job and went to Bradford. Old Jesse were at th' door o' th' house in a long street o' little houses. He'd been sendin' th' children 'way as were clatterin' their clogs in th' causeway, for she were asleep.

"'Is it thee?' he says; 'but you're not to see her. I'll none have her wakened for a nowt like thee. She's goin' fast, and she mun go in peace. Thou'lt never be good for naught i' th' world, and as long as thou lives thou'll never play the big fiddle. Get away, lad, get away!' So he shut the door softly i' my face.

"Nobody never made Jesse my master, but it seemed to me he was about right, and I went away into the town and knocked up against a recruiting sergeant. The old tales o' th' chapel folk came buzzin' into my head. I was to get away, and this were th' regular road for the likes o' me. I 'listed there and then, took th' Widow's shillin', and had a bunch o' ribbons pinned i' my hat.

"But next day I found my way to David Roantree's door, and Jesse came to open it. Says he, 'Thou's come back again wi' th' devil's colors flyin'—thy true colors, as I always telled thee.'

"But I begged and prayed of him to let me see her nobbut to say good-by, till a woman calls down th' stairway. She says, 'John Learoyd's to come up.' Th' old man shifts aside in a flash, and lays his hand on my arm, quite gentle like. 'But thou'lt be quiet, John,' says he, 'for she's rare and weak. Thou wast allus a good lad.'

"Her eyes were all alive wi' light, and her hair was thick on the pillow round her, but her cheeks were thin—thin to frighten a man that's strong. 'Nay, father, yo' mayn't say th' devil's colors. Them ribbons is pretty.' An' she held out her hands for th' hat, an' she put all straight as a woman will wi' ribbons. 'Nay, but what they're pretty,' she says. 'Eh, but I'd ha' liked to see thee i' thy red coat, John, for thou was allus my own lad—my very own lad, and none else.'

"She lifted up her arms, and they come round my neck i' a gentle grip, and they slacked away, and she seemed fainting. 'Now yo' mun get away, lad,' says Jesse, and I picked up my hat and I came down stairs.

"Th' recruiting sergeant were waitin' for me at th' corner public-house. 'Yo've seen your sweetheart?' says he. 'Yes, I've seen her,' says I. 'Well, we'll have a quart now, and you'll do your best to forget her,' says he, bein' one o' them smart bustlin' chaps. 'Ay, sergeant,' says I. 'Forget her.' And I've been forgettin' her ever since."

He threw away the wilted clump of white violets as he spoke. Ortheris suddenly rose to his knees, his rifle at his shoulder, and peered across the valley in the clear afternoon light. His chin cuddled the stock, and there was a twitching of the muscles of the right cheek as he sighted: Private Stanley Ortheris was engaged on his business. A speck of white crawled up the watercourse.

"See that beggar? Got 'im."

Seven hundred yards away, and a full two hundred down the hill-side, the deserter of the Aurangabadis pitched forward, rolled down a red rock, and lay very still, with his face in a clump of blue gentians, while a big raven flapped out of the pine wood to make investigation.

"That's a clean shot, little man," said Mulvaney.

Learoyd thoughtfully watched the smoke clear away. "Happen there was a lass tewed up wi' him too," said he.

Ortheris did not reply. He was staring across the valley, with the smile of the artist who looks on the completed work.

For he saw that it was good.

BASS-FISHING ON THE DELAWARE.

ONE reason why there is so much good bass-fishing in the waters of the upper Delaware River is its nearness to New York. To the fisherman who makes a practice of going off to some remote region to do his vacation fishing this may sound a bit queer, but to the busy man who can get a day off only now and then, it is merely a statement of fact. In the annual rush to get away from the heat of the city most folks go with such an impetus that they entirely overlook the advantages of regions near at home, to the end that many of them know the uninhabited forests of northern Canada and the inaccessible lakes of the Maine woods much better than they know the mountains and valleys within two hours' ride of New York. The tradition about a prophet and his own country may not be strictly true as applied to the upper waters of the Delaware River, but it is certainly not very wide of the mark. It is entirely within reason to say that if the valley up and down the river from Port Jervis and Milford were a few hundred miles farther away from New York, it would be one of the most popular summer resorts in America. It is familiarity that destroys illusion.

Comparatively few people know the region in and about the Delaware Valley. To one who does know it, this is surprising; but to the fisherman who likes a quiet week at rod and line amidst some of the finest scenery on the American continent, and with all the comforts of civilization close at hand, it is extremely satisfactory. It is an ideal place for long-continued fishing. Unlike most remote inland fishing streams, it very rarely palls upon the fisherman; there is always something of incident and change to break the monotony of a quiet life. There is in the bass-fishing on this picturesque stream rather more of the expectancy common to all fishing, for the reason that in the most approved method of angling on the Delaware there is a constant change of scene and location. The fisherman embarks in a boat in the morning at some selected point along the river, and with a congenial companion and a comprehensive basket of luncheon to keep him company, floats down the gentle current all day. In the lazy eddies and in the calm pools he lets out a hundred yards of fine silk line, and waits expectantly for results. The under-sized lamprey-eel that he has impaled on the hook swims about here and there as vigorously as he is able to, and when his frantic struggles for liberty have attracted the attention of some fat but hungry bass, there is a quick tug at the line, a sudden splash on the surface of the water, and an electric quickening of the drowsy life in the boat. If the bass be a five-pounder, he makes a gallant fight for his life, and sometimes he wins, to the unspeakable anguish of the fisherman. The five-pound fish that fights desperately for two minutes, and then breaks away, is never less than a twenty-pounder in the fervid imagination of the fisherman. The biggest bass are those that are never caught.

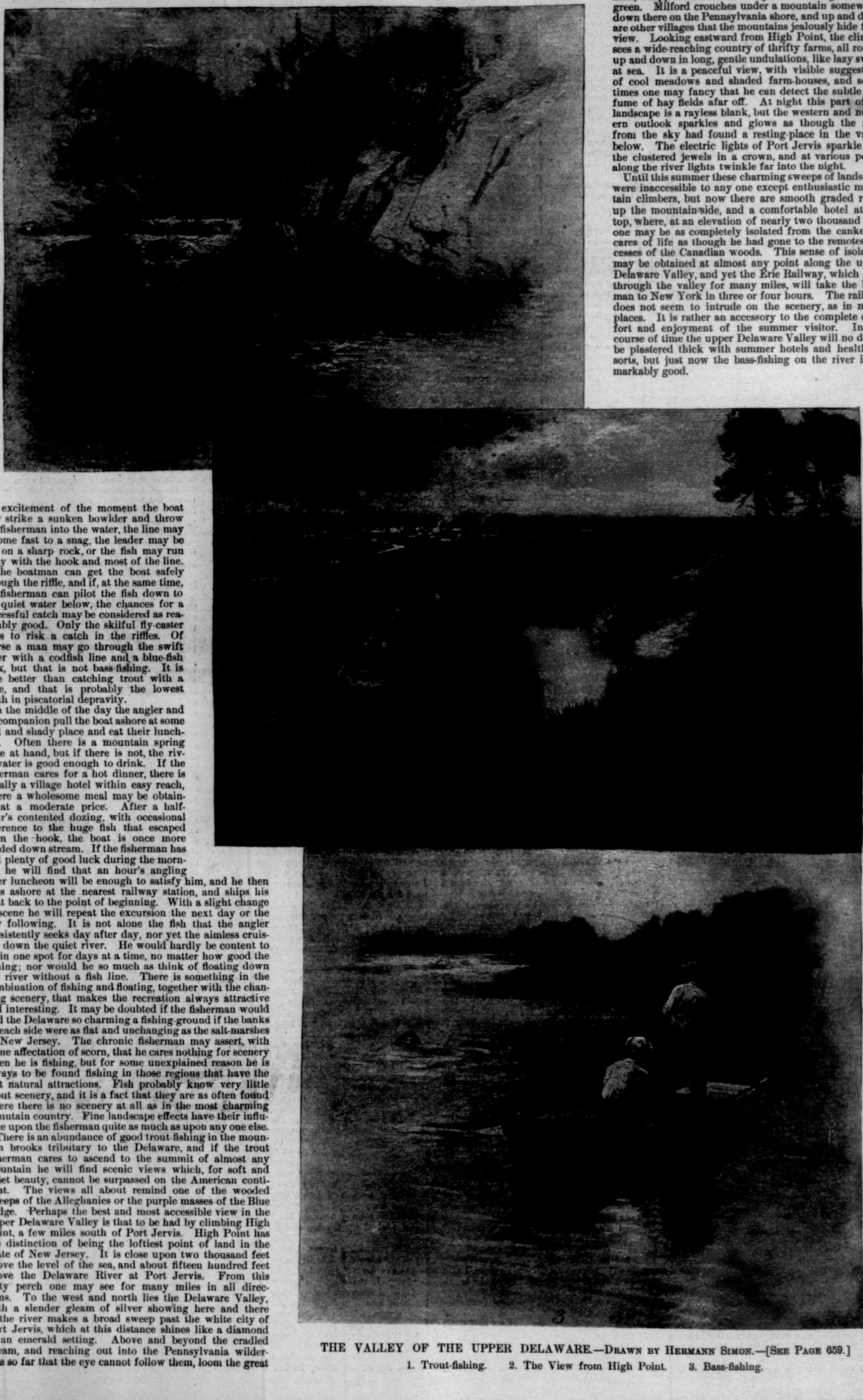
The five-pounder does not always break away, however, for there are occasions when the most desperate and stubborn fighter comes reluctantly toward the boat. It is in the last two moments that the angler's skill is best shown, for at the critical instant the big fish may dart against the boat or under it, and then all is lost. The line may break, the hook may pull out, or the rod itself may snap. Any one of these contingencies means to the angler an ecstasy of grief too keen for words. In more fortunate moments, when the plucky five-pounder lies gasping and panting in the bottom of the boat, these times of mental depression vanish like the mist, and the lucky fisherman harbors feelings of self-pride and vanity that he would hardly like to see put into cold English.

It is one thing to take a big bass in a quiet eddy, with nothing to look out for but the vitality of the lamprey, but it is quite a different thing to go down through a lively riffle, with rocks in it like teeth in a hay rake, and take a five-pounder successfully. It is hard enough to steer the boat through the swift and shallow water, without thinking of fishing, but when a big one has seized the fly that has been deftly thrown at him, and insists upon dodging behind every rock and snag in the riffle, it is rather delicate work to get down to quiet water without an accident. There are a number of disagreeable things that may happen at this time. In the excitement of the moment the boat may strike a sunken bowlder and throw the fisherman into the water, the line may become fast to a snag, the leader may be cut on a sharp rock, or the fish may run away with the hook and most of the line. If the boatman can get the boat safely through the riffle, and if, at the same time, the fisherman can pilot the fish down to the quiet water below, the chances for a successful catch may be considered as reasonably good. Only the skilful fly-caster cares to risk a catch in the riffles. Of course a man may go through the swift water with a codfish line and a blue-fish hook, but that is not bass-fishing. It is little better than catching trout with a seine, and that is probably the lowest depth in piscatorial depravity.

In the middle of the day the angler and his companion pull the boat ashore at some cool and shady place and eat their luncheon. Often there is a mountain spring close at hand, but if there is not, the river water is good enough to drink. If the fisherman cares for a hot dinner, there is usually a village hotel within easy reach, where a wholesome meal may be obtained at a moderate price. After a half-hour's contented dozing, with occasional reference to the huge fish that escaped from the hook, the boat is once more headed down stream. If the fisherman has had plenty of good luck during the morning he will find that an hour's angling after luncheon will be enough to satisfy him, and he then goes ashore at the nearest railway station, and ships his boat back to the point of beginning. With a slight change of scene he will repeat the excursion the next day or the day following. It is not alone the fish that the angler persistently seeks day after day, nor yet the aimless cruising down the quiet river. He would hardly be content to sit in one spot for days at a time, no matter how good the fishing; nor would he so much as think of floating down the river without a fish line. There is something in the combination of fishing and floating, together with the changing scenery, that makes the recreation always attractive and interesting. It may be doubted if the fisherman would find the Delaware so charming a fishing-ground if the banks on each side were as flat and unchanging as the salt-marshes of New Jersey. The chronic fisherman may assert, with a fine affectation of scorn, that he cares nothing for scenery when he is fishing, but for some unexplained reason he is always to be found fishing in those regions that have the best natural attractions. Fish probably know very little about scenery, and it is a fact that they are as often found where there is no scenery at all as in the most charming mountain country. Fine landscape effects have their influence upon the fisherman quite as much as upon any one else.

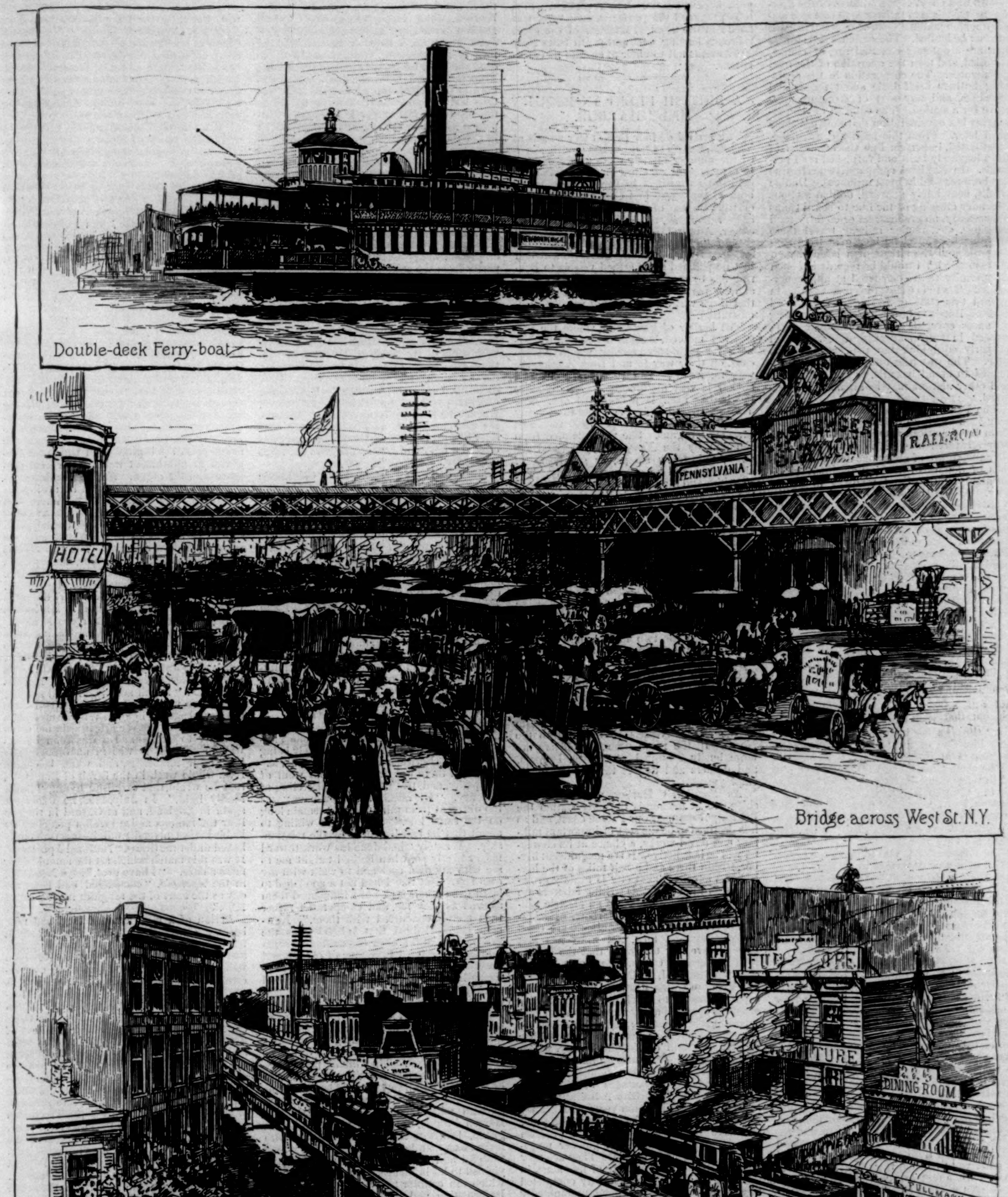
There is an abundance of good trout-fishing in the mountain brooks tributary to the Delaware, and if the trout fisherman cares to ascend to the summit of almost any mountain he will find scenic views which, for soft and quiet beauty, cannot be surpassed on the American continent. The views all about remind one of the wooded sweeps of the Alleghanies or the purple masses of the Blue Ridge. Perhaps the best and most accessible view in the upper Delaware Valley is that to be had by climbing High Point, a few miles south of Port Jervis. High Point has the distinction of being the loftiest point of land in the State of New Jersey. It is close upon two thousand feet above the level of the sea, and about fifteen hundred feet above the Delaware River at Port Jervis. From this lofty perch one may see for many miles in all directions. To the west and north lies the Delaware Valley, with a slender gleam of silver showing here and there as the river makes a broad sweep past the white city of Port Jervis, which at this distance shines like a diamond in an emerald setting. Above and beyond the cradled stream, and reaching out into the Pennsylvania wilderness so far that the eye cannot follow them, loom the great hills, wrapped all about in the pine's covering of eternal green. Milford crouches under a mountain somewhere down there on the Pennsylvania shore, and up and down are other villages that the mountains jealously hide from view. Looking eastward from High Point, the climber sees a wide-reaching country of thrifty farms, all rolling up and down in long, gentle undulations, like lazy swells at sea. It is a peaceful view, with visible suggestions of cool meadows and shaded farm-houses, and sometimes one may fancy that he can detect the subtle perfume of hay fields afar off. At night this part of the landscape is a rayless blank, but the western and northern outlook sparkles and glows as though the stars from the sky had found a resting-place in the valley below. The electric lights of Port Jervis sparkle like the clustered jewels in a crown, and at various points along the river lights twinkle far into the night.

Until this summer these charming sweeps of landscape were inaccessible to any one except enthusiastic mountain climbers, but now there are smooth graded roads up the mountain-side, and a comfortable hotel at the top, where, at an elevation of nearly two thousand feet, one may be as completely isolated from the cankering cares of life as though he had gone to the remotest recesses of the Canadian woods. This sense of isolation may be obtained at almost any point along the upper Delaware Valley, and yet the Erie Railway, which runs through the valley for many miles, will take the busy man to New York in three or four hours. The railway does not seem to intrude on the scenery, as in many places. It is rather an accessory to the complete comfort and enjoyment of the summer visitor. In the course of time the upper Delaware Valley will no doubt be plastered thick with summer hotels and health resorts, but just now the bass-fishing on the river is remarkably good.



THE VALLEY OF THE UPPER DELAWARE.—DRAWN BY HERMANN SIMON.—[SEE PAGE 659.]

1. Trout-fishing. 2. The View from High Point. 3. Bass-fishing.


Double-deck Ferry-boat
HOTEL
PENNSYLVANIA
PASSENGER STATION
RAILROAD
Bridge across West St. N.Y.
FURNITURE
DINING ROOM
P.R.R.
PULLMANN
Elevated R.R. at Newark Ave, Jersey City

PROJECTED IMPROVEMENTS IN THE TERMINAL FACILITIES OF THE PENNSYLVANIA RAILROAD.—Drawn by F. H. Schell.—[See Page 662.]

THE PENNSYLVANIA RAILROAD IMPROVEMENTS.

The first effort of the builders of the average new American railway is to secure a single track on which a train of cars can in some manner be hauled. The switches and sidings that are absolutely essential are, of course, supplied, and then the operation of the road commences. The corporation in the beginning bothers itself little about fences and crossings, and any sort of structure may serve for a station. The comfort of the passengers is a consideration that does not come until later. From this hastily constructed, unballasted, imperfect line the evolution of the adequately built and furnished road proceeds. In England comparative perfection has been reached in most instances. Double tracks, completely guarded, double stations to render crossing of the line to board trains unnecessary, no grade street or country road crossings, etc., render railway travel there particularly safe. The idea of a train running through the streets of a large city on the common level would be regarded, if such an enormity were considered at all, preposterous. There is a slow movement setting in toward this state of feeling in the United States. But it is tardy, because of the long distances covered, and the difficulty experienced in fully saturating the stock and properly equipping the road at the same time. The watering operation must be attended to at all hazards, as a usual thing, and other matters may be attended to afterward.

The Pennsylvania company has, notably, long been moving in the right direction, and from the American stand-point its road is a very advanced one. It is now engaged in the expenditure of about one and a half millions of dollars in the improvement of its terminal facilities and roadway in Jersey City. At the Hudson River end of its line it is about to erect a new station, which will be the largest in the United States. Its roof will have a single span of two hundred and fifty feet. The old building is being taken down, and temporary sheds erected. For nearly a mile back of the terminus the tracks are to be elevated, so as to put an end to grade crossings in the city for that distance. The viaduct for a third of a mile from the station will be a solid embankment walled in with stone masonry, save where a few streets are bridged. The solid way will connect near Newark Avenue with an iron structure three-fifths of a mile long, similar to but much more substantial than the elevated roadways in New York city. There are to be four tracks, two of which are partially completed. The whole will give the Pennsylvania road an unimpeded way to the river through the busy part of Jersey City very like that of the New York Central to its station at Forty-second Street, and will at the same time tend to diminish the rates of life-insurance in its vicinity through allowing the populace to walk or ride under passing trains, instead of disputing the right of way with them. The list of casualties at the grade street crossings about to be abolished is a long one.

The corporation is also to make the experiment of a new departure in its ferry-boats. It is altering the vessel *New Brunswick*—and the work is about completed—so as to give it a commodious upper deck similar to that used on the Staten Island, South Brooklyn, and the Annex ferries. There is some talk of providing for the transfer of passengers from the trains, which will come into the station at an elevation, to the upper decks of the boats in a way that will obviate the necessity of ascending or descending steps, and of further carrying out the plan on the New York side by a direct and level communication with a bridge across West Street. The supplying ferry-boats with second stories is shown to be desirable by the extent to which passengers give evidence of preferring them to the lower decks where a choice is presented, as in the cases named above. The two-story idea is spreading among conveyances generally. The Fifth Avenue omnibus line has secured a fair grasp of the idea, to the advantage alike of proprietors and patrons. The outside of Paris and London omnibuses and tram cars is more patronized in good weather than their interiors; and if New York street cars were fashioned like those on the other side of the water—many of which, by-the-way, are made in New York—the superiority of comfortably sitting on a top seat to hanging on straps below, and treading on other people's toes, would be at once demonstrated in Gotham. The prospect of the two-story ferry-boat supplanting the single-deck species, where there is any considerable traffic involved, promises well.

The matter, however, of keeping the Pennsylvania company's passengers on an approximately level elevation from the time they leave the cars in Jersey City until they have crossed West Street in New York has yet to be determined upon. The desirability of bettering the situation at West Street is unmistakable. The delay, inconvenience, and annoyance experienced by the thousands of people landing from the boats at that perennially overcrowded and filthy thoroughfare are very great, and point to the probability that the proposed bridge will be erected, the company being evidently bent on placing its terminal accommodations in as good shape as circumstances will permit. Neither the legislation which has been had respecting the much-mooted bridging of the Hudson nor the tunnel now in process of construction under that river has apparently any effect on the work the Pennsylvania company is carrying on. The revolution which it is predicted the projected structures will create in the terminal business of the great railroads leading west and south from New York seems not to enter at all into its calculations.

A BRITISH FLEET IN ESQUIMALT HARBOR.

The arrival of four British war vessels at Victoria, British Columbia, last month, swelled the number already there to six, and led to a great deal of more or less anxious or bellicose surmisings in the Western press, both of the States and Canada. The first-class character of the principal vessel, the cruiser *Warspite*, the standing of the chief officer, Admiral Hotham, the unexampled size of the fleet (in these waters), and the fact that the United States government had just despatched some armed vessels to Behring Sea to guard our sealing interests, gave at least partial justification for the theory that there was a possibility of warlike demonstration.

The harbor of Esquimalt, where the vessels are moored, became a popular rendezvous for sight-seers, among whom Americans, on their way to and from Alaska, are very numerous. The view of the fleet at anchor is very picturesque, especially since the harbor itself is a beautiful one. The *Warspite* (flag-ship) is a new and thoroughly modern armored cruiser of 3400 tons, and carrying ten guns. She was attended from England by the *Nymphe*, *Daphne*, and *Espiègle*, twin-screw sloops, or gun-boats, of eight, eight, and ten guns respectively. The *Amphion* and the *Champion*, which preceded the flag-ship, are of a similar class, and the total armament of the fleet exceeds fifty guns. But quite as impressive as the ships themselves is the reputation of their commander, Admiral Hotham, C.B., the youngest Admiral in the English navy, and ranking next to Lord Charles Beresford himself in popularity at home. He is forty-one years of age, and has distinguished himself in China and at Alexandria. He is far from warlike in his expressions of opinion upon the Behring Sea trouble. He sees no possibility of war between the two nations, and says so bluntly. As to the part he is to play pending the arbitration or diplomatic settlement of the dispute, he asserts that he is ignorant, and that he came to Victoria without farther orders. Instructions have since been received, and it is significant that they are understood to cover the sending of only two of the smaller vessels of the fleet to the North. In the mean time the officers are more busily occupied at cricket, lacrosse, and dinners and dances than at any other employment.

As Esquimalt Harbor, where the war ships are at anchor, is the only station the British possess near our Pacific coast, and as it is destined to be the seat of important military and naval works, a glance at its character will be instructive. It is a magnificent harbor, within three and a half miles of the harbor of Victoria. That city is rapidly growing toward it, and at this writing laborers are laying down the road-bed of an electric railroad to connect the two harbors. Real-estate operations around Esquimalt are especially lively just now, and word has just been received by telegraph that the Pacific Mail Steam-ship Company, now at serious odds with its rival, the Canadian Pacific Railway's line of China steamers, has decided to order its vessels to touch at Esquimalt hereafter. These and many more important considerations warrant the belief expressed by far-seeing Victorians that the future harbor of that city will be Esquimalt Bay, which is far superior to the present anchorage for the city's commercial fleet.

The marked advantages of Esquimalt Harbor caused the British Admiralty to select it for a naval station years ago. They purchased ground on the shores at that time, and have erected there a naval hospital, an arsenal, a dock-yard, and a powder magazine, the latter on an island. They are now negotiating for the purchase of five acres in addition, and they have recently completed surveys of the neighborhood, undoubtedly with a view to erecting fortifications on one of the many hills near by which overlook the strait by which the main-land and the island of Vancouver are approached from the sea and from our borders. The Dominion government has constructed there, at great expense, a superb stone graving-dock 400 feet long, 90 feet wide, and 26 feet deep. Until the new dock at Mare Island was completed by our government this was the finest dry-dock on the west coast of America.

Esquimalt Harbor opens directly into the sea, and yet is mainly land-locked. Its waters are between six fathoms and fifteen fathoms in depth, and its size is sufficient for the navies of nearly all the first-class powers to anchor in. From a military point of view, these advantages, and its situation in front of the Canada coast and between Washington State and Alaska Territory, are very considerable. Yet it must be remembered that the United States possess the island of San Juan, which, while its ownership was disputed, was declared by the highest English authorities to be the key to the naval situation on that coast.

THE LATE CARDINAL NEWMAN.

Death has removed from the ranks of the living one of the greatest of modern Englishmen, John Henry Newman, Cardinal Deacon of the Holy Roman Church. Son of John Newman, a member of the banking firm of Ramsbottom, Newman, & Co., London, and elder brother of another gifted man, Francis William Newman, John Henry was born in the British capital in 1801. He was thus but one year short of being as old as the century. His career is intimately connected with an interesting and peculiar epoch in English ecclesiastical history, and although his character and life work are certain to be very differently estimated, it will be denied by no one that he was one of the most remarkable men of his time.

His mother was of a well-known Huguenot family, and devoted to the religion of her people. Young Newman was therefore under religious influence domestically from his very earliest years; so much so that at the age of fifteen, under Calvinistic guidance, and partly from the study of a book by the then famous Romaine, he became the subject of an "inward conversion," of which he said, in 1864, "I am more certain than that I have hands and feet." He had already read Paine's tracts against the Old Testament, some of Hume's essays, and he had become familiar with some of the sceptical teaching of Voltaire, especially in regard to the immortality of the soul. His judgment was, "How dreadful, but how plausible!" His secular education was conducted at Ealing School, whence he went to Trinity College, Oxford. He graduated B.A. at Trinity, taking classical honors, in 1820, and was soon afterward elected a fellow of Oriel College at the same university.

Hitherto he had retained his Calvinistic impressions, although he never could accept what he afterward, in the *Apologia*, calls "the detestable doctrine" of reprobation. One of his favorite authors was Thomas Scott, of Aston Sandford, the commentator. To him, he says, "I almost owe my soul"; and he hung on the lips of Daniel Wilson, afterward Bishop of Calcutta, as, in two sermons, he gave an account of Scott's life and death. He delighted also in Milner's *Church History* and in Newton's *Prophecies*. From Newton he learned to identify the Pope with antichrist—a doctrine by which, he has told us, his memory "was stained up until the year 1843," or until he was forty-two years of age. At Oriel he came under new influences. There he came into contact with such men as Whately, Hawkins, Hugh James Rose, Blanco White, Keble, Pusey, Richard Harrell Froude, Bowden, and others—a brilliant class of men, and full of the feverous unrest of the time. In 1825 he became Vice-Principal of St. Alban's Hall, Whately being Principal. Between Whately and the Vice-Principal there was friendship, but want of sympathy, and, truth told, a slight feeling of jealousy. "His mind," says Newman, "was too different from mine for us to remain long on the same line." But he was willing to admit that he had benefited by the relationship. Whately "had done his work toward me, or nearly so, when he had taught me to see with my own eyes and to walk with my own feet. Not that I had not a good deal to learn from others still, but I influenced them as well as they me, and co-operated rather than merely concurred with them." Newman acknowledged that Whately was the first to give him a clear conception of separate though related functions of church and state. For Whately's special theological tenets he had no sympathy. Newman had already been dreaming of an independent course; and Whately, recognizing in him a force pressing and destined to press more and more in a line altogether different from his own, treated him accordingly, and sometimes with that rough humor for which he was characterized. They finally parted.

Newman resigned the Vice-Principalship of St. Alban's Hall in 1826, and became tutor of his college—a position which he continued to hold until 1831. He had already met Harrell Froude, brother of the historian—a gifted, brilliant, impetuous creature, with more ideas than logic in his head, but withal forceful and impelling. Newman felt and yielded to his influence. It was an influence which ran counter to everything which the Reformation and the reformers had made sacred, and the logical tendency of which was most unmistakably Romeward. About the same time, or rather a little later, he met Keble, who had just published his marvellous volume, *The Christian Year*. The two were brought together by Froude. "If I was ever asked," says Froude, "what good deed I had ever done, I should say that I had brought Keble and Newman to understand each other." At first Keble was shy of Newman, because, as the latter says, "of the traces which I bore of the evangelical and liberal schools." Henceforward Newman bore no more any traces either of liberalism or evangelicalism. Froude turned his mind toward the Church of Rome and against the Reformation. "He fixed deep in me," says Newman, "the idea of devotion to the Blessed Virgin, and he led me gradually to believe in the Real Presence." Keble, in a quieter, but equally effectual way, influenced him in the same direction. In 1828 he accepted the incumbency of St. Mary's, Oxford, with the outlying chaplaincy of Littlemore; and at this retreat and elsewhere he was seeing much of his friends Froude and Keble. Froude, bustling and restless, was ever giving some new manifestation of his intellectual activity; Newman was busy with his *Arians of the Fourth Century*; and Keble was preparing for the press his edition of Hooker's *Ecclesiastical Polity*. The Roman Catholic sentiments of the three men were being broadened and deepened; and the tendency Romeward, in one of them at least, although perhaps as yet unconsciously to himself, was becoming more pronounced.

In 1832, his book on the Arians having been finished, Newman was easily persuaded to join Harrell Froude and his father in a trip to the south of Europe. It was an interesting period in the history of the two younger men. Newman was already comparing the Church of England, as he saw her, with that fresh vigorous power of which he was reading in the first centuries. "In her triumphant zeal on behalf of that Primeval Mystery, to which I had had so great a devotion from my youth, I recognized the movement of my spiritual mother—*Incessu patuit Dea*. The self-conquest of her ascetics, the patience of her martyrs, the irresistible determination of her bishops, the joyous swing of her advance, both exalted and abashed me. I said to myself, 'Look on this picture and on that.' I felt affection for my Church, but not tenderness. I felt dismay at her prospects, anger and scorn at her do-nothing perplexity." He tells us further that if liberalism got a firm footing in the Church, it would carry the day; that Reformation principles were powerless; that though as yet he had not thought of leaving the Anglican communion, he ever saw something before him greater than the Establishment—"The Church Catholic and Apostolic set up from the beginning, of which the Anglican Establishment was but the local presence and the organ. She was nothing unless she was this. She must be dealt with strongly or she would be lost. There was need of a second reformation." It can easily be imagined what effect a visit to Italy, and especially a visit to Rome, would have on such a mind so directed. The two friends met many prominent persons, among them Monsignore, afterward Cardinal Wiseman. They attended the Tenebræ at the Sistine, and heard the Miserere. Newman's thoughts were always turned homeward. His hatred of the liberals became more intense. He began to think he had a mission. Taking leave of Wiseman, he said, "We have a work to do in England." He fell sick of fever in Sicily, and his life was in danger; but he said to his servant, after giving, as requested, his last directions: "I shall not die. I shall not die, for I have not sinned against light—I have not sinned against light." Why he used such language he was never afterward able satisfactorily to explain. He was soon on his way home; and it was in an orange boat bound for Marseilles, and when becalmed for a whole week in the Strait of Bonifacio, that he wrote that exquisite hymn, "Lead, kindly light." In July, 1833, he was back again in England, and at Oxford in time to hear the famous assize sermon preached by Keble in the University pulpit—a sermon published under the title of "National Apostacy." It was this match which set the smouldering mass ablaze. "I have ever," says Newman, in the *Apologia*, "considered and kept the day as the start of the religious movement of 1833."

Action of a more decided kind had now become a necessity. There was already a following. Keble's popularity was great, and of a very intense description. Newman was making his influence felt upon ever-increasing numbers from St. Mary's pulpit. A conference was held at Hadleigh, but Newman felt that what this new reformation wanted was a new Luther. It was in these circumstances he conceived the idea of *Tracts for the Times*. It was his own idea, and he was the soul of the movement from the commencement. He wrote, or rewrote and revised, all the earliest of the famous series. As Mozley puts it, no one could write a tract but himself. Others wrote sermons or treatises, but Newman was the Tractarian *par excellence*. It was in 1835 that Dr. Pusey, who had hitherto stood aloof, joined the movement. It was felt to be an immense gain. Pusey was a Professor and a Canon of Christ Church. He was besides a splendid scholar, and profoundly read in German theology. Pusey's tract on *Baptism* was epoch-making in its influence. It frightened off some of the more timid, like Frederick Denison Maurice, but it gave the party "a position and a name." Puseyism became synonymous with Tractarianism. The party, according to Newman, had now found a head. "There was one who furnished the movement with a front to the world, and gained for it a recognition from other parties in the university. Dr. Pusey was a host in himself." The movement went on apace, and as it gathered strength its purpose became more direct, its logical basis more apparent. Newman's battle was with liberalism, with the anti-dogmatic. He insisted on a visible Church, with sacraments and rites and definite religious teaching based on dogmas, and he held that the Anglican Church was *the* Church as opposed to the Church of Rome. This principle of dogma, Newman, strangely enough, had brought with him from the evangelicals. "From the age of fifteen dogma had been the fundamental principle of my religion. I know no other religion; I cannot enter into the idea of any other sort of religion." Romanism at this stage incurred his hostility.

Anglicanism was the only divine system. "My own Bishop," he says, "was my Pope,"

A new phase of the movement was presented when in 1838 the Bishop of Oxford animadverted upon the Tracts. Newman was willing to discontinue them, and even to go so far as to withdraw such as were specially objectionable. But the Bishop did not insist on either course. The publication of the Tracts, therefore, went on. It was not long until it began to be evident that sentiment was ripening toward a crisis. Newman had stood on a sort of *via media*. The Church of England was a true branch of the Holy Catholic Church. It was ancient and apostolical. It had the true order of succession. Rome had fallen into error. It was about this time, 1839, that the doctrine of the essential unity of the Church began to occupy his thoughts. The Church was one, *quod semper, quod ubique, quod ab omnibus*. Was not the Roman Church "the main body of the Church Catholic"? Was not apostolic descent in the main body? If sacramental grace be the exclusive property of an external order, the order must be visible, and it must also be exclusive. If the Church of England be the old Church of which Athanasius and Augustine were members, then the doctrines and formularies must be the same as those of the old Church. But they were not the same. Hence the necessity for bringing the Thirty-nine Articles into accord with mediæval doctrine, and hence Newman's Tract 90, with the explosion which followed. According to Newman's own Bishop, the Tract made the Articles mean anything or nothing. The words cut him to the very quick. Four tutors of the university, among them the late Archbishop Tait, published a protest against the Tract; and a formal censure was passed upon it by the heads of Houses a few days later. It was in vain that Keble and Pusey came to the assistance of the author. The Tract was finally withdrawn at the request of the Bishop. Newman's leadership was virtually ended. His position was aggravated by the establishment of the Bishopric of Jerusalem, which he regarded as an invasion of Catholicity—an invasion carrying with it the sanction of Lutheran and Calvinistic heresy. From this date—the spring of 1841—Newman, to use his own words, was "on his death-bed" as regards the Church of England. He retired to Littlemore. He resigned in 1843 the parochial charge of St. Mary at Oxford. In 1845 he had become a Roman Catholic; and at the beginning of 1846 he left Oxford, and passed within the pale of the Roman Church.

Public interest in Newman practically ceased when the great scholar and divine shut himself out of public view. The Roman Church did its best to bring him forth from retirement, and make him publicly useful. As soon as he was ordained priest he founded the English Oratory, and became head of its Birmingham house. In 1854 he was appointed rector of the newly founded Catholic University in Dublin, a position which he resigned in 1858. Returning to the neighborhood of Birmingham, he established at Edgbaston a school for the sons of Roman Catholic gentry. There, in the neighborhood of the oratory which he founded, he continued to labor until the end, only occasionally having a word to say to the outside world. His publications are numerous, among the latest being *Apologia pro Vita Sua*, 1864; a *Collection of Poems*, 1868; *Essay on Assent*, 1870; and a letter to the Duke of Norfolk on Mr. Gladstone's "Expostulation," 1875. Doubts have been entertained and expressed as to the genuineness of Newman's conversion to the Catholic faith, but his own words must be accepted. His retirement was a serious blow to the Anglican Church. His accession to Rome was a great acquisition. His influence as a teacher of men is not likely to be lastingly useful, but his works will long continue to be read and admired for their subtle logic, for the fine thinking and delicate play of imagination which they reveal, and for their marvellous beauty and grace of style.

SANTA BARBARA.

THE geniality and evenness of temperature in the climate of southern California exempt those persons who live in it from the exhausting drain upon the physical system that follows the violent changes of weather to which most of the Eastern States are subject. Thus in this favored land the unexhausted reservoirs of human vitality tend to a fine physical and mental development, and overflow in the expressions of joyous natural life that accompany a healthful vigor of body and mind. In the full enjoyment of this delightful sub-tropical climate is the quaint town of Santa Barbara, situated in a beautiful crescent-shaped inward curve of the Pacific coast in southern California, three hundred miles south from San Francisco, and about one hundred miles northwesterly from Los Angeles. It is the modernized outgrowth of an old Spanish town built about a mission. A group of islands on the southwest, which includes Santa Rosa and Santa Cruz, checks the force of the tremendous breakers of the Pacific as they roll inshore after storms. Thus between the islands and the main-land there lies a broad peaceful channel, constituting an excellent harbor, with good anchorage, safe landings at almost every point of the shore, and for most of the year a steady afternoon breeze from the trade-winds.

North of the town the Punta del Castillo (Castle Rock) of the Aloha or Mesa Headland breaks the surf which dashes fiercely upon its northern side, while on the south of the promontory the sea rolls gently in long smooth swells up the broad, gently sloping beach of clear white sand stretching away for miles in crescent lines to the very base of the Santa Ynez Mountains.

The first European visitor to the site of Santa Barbara was Cabrillo, a Portuguese commander in the service of Spain, who, in July, 1542, anchored his ships *San Salvador* and *La Vittoria* in the waters of the tranquil harbor. The first colonization of the place was done by that zealous missionary the Franciscan friar Junipero Serra, who, in April, 1782, established there a presidio, or military garrison. On the fourth day of December, 1786, the feast-day of Santa Barbara, virgin and martyr, this indefatigable friar raised the cross, and founded the mission named in honor of that saint's day. This religious establishment, which controlled an extensive tract of land, was wealthy and powerful, and a notable one among the missions of southern California. The height of its prosperity was reached about the year 1812, after which, through the extortions of the Spanish and the Mexican governments, and finally by the operation of the secularization act, it declined so much that, in 1845, its immediate property was leased. In 1852 the mission was organized into an independent Franciscan convent or college, and in 1885 the college was annexed to the province of the Sacred Heart of Jesus, of the United States of America.

The old mission establishment, with its long arcades, tiled roof, beneath which white doves make their nests in peace, and its dome-like belfries holding aloft their crosses, is a pleasing and historic feature in an American community. In its spacious high-walled gardens are a great variety of native plants and rare exotics, ancient and fruitful vines, fig, pomegranate, peach, and orange trees, and—relics of old times—some olive-trees first cultivated by the Franciscan missionaries. Here, by the great stone fountain, with no structure in sight save the old mission buildings, in a quiet broken only by the solemn tones of the old bell in the tower calling the devout to prayers, one could well fancy that the century had gone back to its beginning, and that he was living in the days when the Church ruled autocratically this province of Spain. On the outside wall, over the door leading to the burial-ground, the *memento mori* precept is presented in an unusually practical manner in the shape of several veritable skulls and cross-bones set in the masonry. They are an adornment of a nature to work powerfully upon the superstitious fears of Indians, and to help the effect of a grim painting on the interior wall of the church representing a scene of eternal torment.

The rural region about Santa Barbara is an attractive vicinage of fruitful valleys and rippling streams, with views of the ocean on the one side, and glimpses of the rugged cañons of the Coast Range on the other. On the slopes and in valleys formed by the widening of the mountain gorges lie farm-houses, dairies, fruitful orchards, and meadows brilliant with flowers. The line between northern and southern California is defined by the picturesque Santa Ynez Mountains, which look steep and craggy in the glare of day, but are softened into attractive outlines with beautiful tints at sunrise and sunset. About Santa Barbara flourish walnut, almond, orange, peach, pear, and plum orchards, and the culture of the olive is proving to be a success. Outside the scope of economic cultivation the whole region runs riot with the growth of wild flowers of the greatest beauty and variety, from the vigorous blooming forth of the gaudy poppies and superb magnolias of the lower lands to the delicate edelweiss and tender forget-me-nots of the mountain slopes, all of which flowers bloom in every season.

Santa Barbara is a wealthy, refined place, in which a large proportion of its residents are persons of means, with leisure and good taste to bestow upon their mode of living and the development in desirable lines of their city. In its social aspect the town compares favorably with the best cities of its size anywhere in the United States. The educational facilities are good, churches abound, and there is an excellent public library, and several societies of a scientific or social order. The streets are spacious and well kept, and the public buildings are fine and suitable to their purposes. The residence houses of the town, usually of a form of architecture characteristic of the region, and adapted to its requirements, are very agreeable to the eye, and elegant in their construction and interior furnishing. They stand each in the midst of spacious private grounds, amid roses and other flowers, embowered in a wealth of tropic and semi-tropic foliage.

Many visitors are drawn thither by the climate, the bathing, and the beauty of the surrounding region. Foremost in the list of attractions for those persons fond of surf-bathing is the beach, which also is a charming drive and promenade. For an excursion one may ride or drive out to La Piedra Pintada (Painted Rock)—also called "Bad Indian Cave"—in the slope of the Santa Ynez Mountains, four miles distant from town. Here various curious hieroglyphical figures have been depicted on the rock-side by the aborigines. Twelve miles east from Ventura, and twelve hundred feet higher than that place, is the Ojai Valley, a natural sanitarium for persons afflicted with pulmonary complaints. The beautiful country suburbs of El Monticito Valley afford a delightful drive, both in the approach and in the drive up the picturesque cañon of the Hot Springs.

TO-MORROW.

"THERE is an island full of pleasant places
  For which men hunger ere the day grows old,
And thitherward they turn with uplift faces,
  Longing to rest them in its blessed fold.

"No grief, they say, may steal within its border;
  There hurt wounds heal them swiftly of their smart;
While sweet forgetfulness doth stand as warder
  To still the aching tumult of the heart.

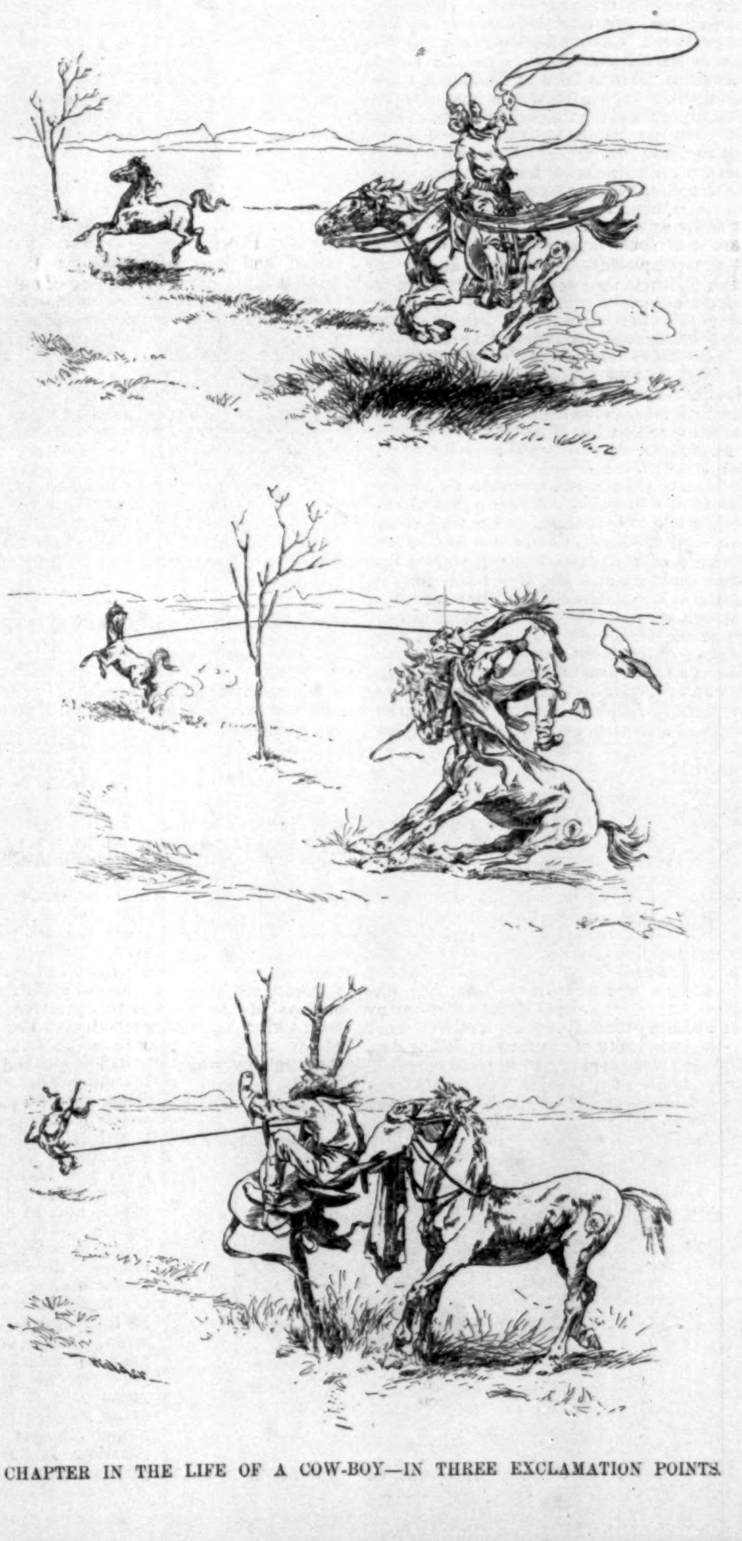
"There, too, to-day's brief joys shall have great increase,
  And all its longings shall find blessed gain,
While to the toiler there shall come sweet surcease,
  For, lo! this island knoweth naught of pain."

Then one whose life had felt the fevered throbbings
  Of great wounds gotten in the day's swift tide,
Turned, and gave eager question, touched with sobbings,
  Unto the mighty chorus at his side:

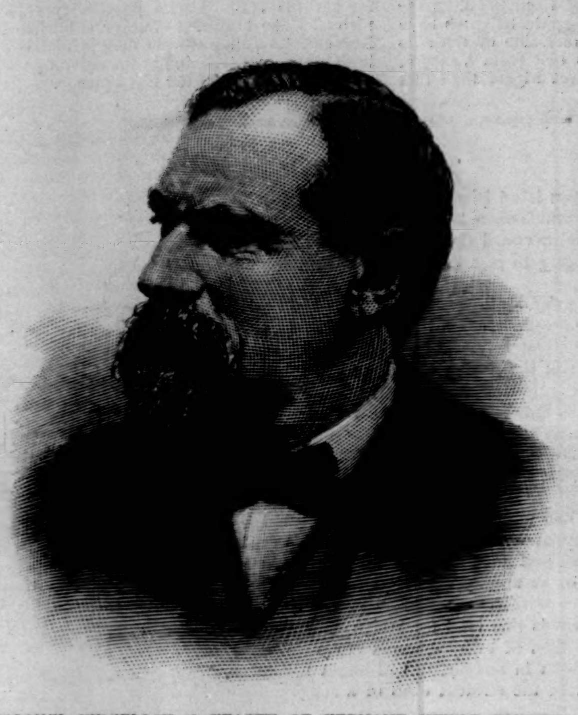
"Where is this land for which with strong persistence
  The men of every age and clime do long?"
And swift in answer, full of sweet insistence,
  Uprose the strident echo of a song:

"Behold, the island that is void of sorrow,
  And for whose shelter men have long made quest!
We have not seen, but it is called To-morrow—
  The land within whose borders there is rest."

LUCY E. TILLEY.



A CHAPTER IN THE LIFE OF A COW-BOY—IN THREE EXCLAMATION POINTS.



COLONEL WHEELOCK G. VEAZEY, OF VERMONT, NEWLY ELECTED COMMANDER-IN-CHIEF OF THE GRAND ARMY OF THE REPUBLIC.
FROM A PHOTOGRAPH.—[SEE PAGE 655.]

CHARLES LORING BRACE.

THE man of all others in the world who best deserved the title of "the children's friend" has just died in Campfer, in the Swiss Tyrol. Charles Loring Brace was the son of John Pierce Brace, himself a noted educator. He was born at Litchfield, Connecticut, in 1826. He was a graduate of Yale College and the Union Theological Seminary, and in 1850 he went to Europe in order to undertake a pedestrian journey for pleasure with Frederick Law Olmsted. After travelling through Great Britain and Ireland Mr. Brace spent the winter of 1850–1 in study at Berlin, and then went to Hungary, where the political situation was still very much "strained" after the events of 1848. There he was arrested on suspicion of being a political agent, and it was only after a month's imprisonment and a lively diplomatic correspondence that he was released.

His further travels at this time included Switzerland and Italy, and while there he studied the management of schools and prisons, and became interested in what was to prove the great work of his life.

In 1853 Mr. Brace returned to this country, and through his efforts was founded the Children's Aid Society, of which he has remained the Secretary and the principal executive officer ever since. In a very short time after the foundation of this society the necessity of a newsboys' lodging-house became apparent, and Mr. Brace was instrumental in the establishment of the present institution—the only one of its kind in the world.

In 1856 Mr. Brace went abroad again, as a delegate to the International Convention for Children's Charities in London; and in 1872 he was a delegate to the International Prison Congress in London. In that same year he revisited Hungary, and was received there with distinction. He went abroad also in 1865 to carry out a special sanitary investigation into the cities of Great Britain.

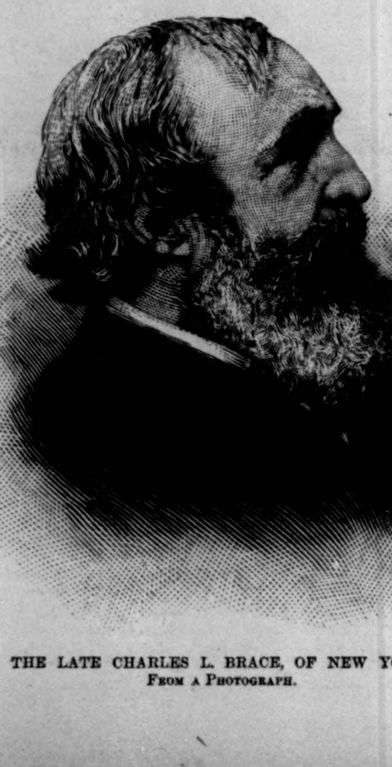
His great work, however, was done at home. New York city has felt the force of his beneficent activity for thirty-seven years. The Children's Aid Society is recognized as one of our best local institutions, and has helped many thousands of boys and girls to a better life. During the third of a century since its organization the society has placed in good homes no less than 70,000 children. In the lodging-houses, founded mainly through Mr. Brace's efforts, more than 200,000 boys and girls have found a shelter.

About seventeen years ago Mr. Brace started, under the auspices of the Children's Aid Society, the "fresh air" movement for small children, which has since expanded to such large dimensions. At first only excursions were planned, but very soon a permanent summer home for children was established, of which the present "home" at Bath Beach is the outcome.

The vital principle of all Mr. Brace's efforts was to help others by enabling them to help themselves. The sense of self-respect was never degraded by his efforts. To his sensible and practical application of this principle his marvellous success was mainly due.

In addition to all his other work, Mr. Brace was a frequent writer for the press, contributing often to the editorial and literary columns of the *Times*, and finding leisure also, as none but a busy man could, to write and publish a number of books dealing with the topics in which he took especial interest. Among these may be mentioned *Hungary in* 1851, *Home Life in Germany*, *The New West*, *Short Sermons for Newsboys*, *The Dangerous Classes of New York*, and *Free-trade as a Promoter of Peace and Good-Will among Men*. His most famous book, however, was *Gesta Christa*. His latest was *To the Unknown God*, published about a year ago.

For some time past Mr. Brace had felt the bad effects of overwork, and had gone to Switzerland to find rest, and, as he hoped, recovery. He leaves a wife and four children—two sons and two daughters. His wife, one son, and one daughter were with him when he died.

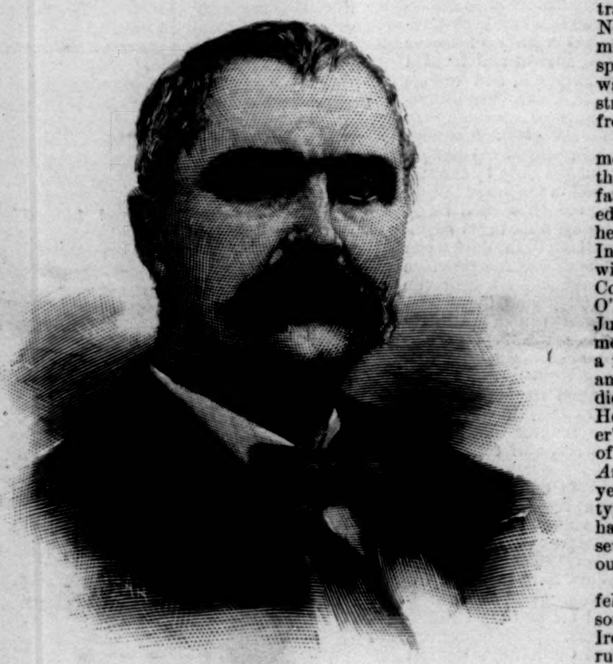


THE LATE CHARLES L. BRACE, OF NEW YORK.
FROM A PHOTOGRAPH.

JOHN BOYLE O'REILLY.

JOHN BOYLE O'REILLY died at his summer home in Hull, Massachusetts, some time between half past ten o'clock on Saturday night and three o'clock on Sunday morning. The cause of his death is said to have been heart failure.

Boyle O'Reilly, as he was familiarly called, was easily the most distinguished Irishman in America. He was one of the country's foremost poets, one of its most influential journalists, an orator of unusual power, and he was endowed with such a gift of friendship as few men are blessed with. He was a leader in political movements during all his manhood, and yet he was not a politician. His influence with the people of his race was so great that his position on any party question was of the utmost importance, and yet if he ever appeared at a party convention or spoke from a party platform it was very seldom. He was one of Parnell's trusted advisers. He did more than any other man in the United States for the cause of home-rule in Ireland. He was the centre of his people's activity, but he was an exile from his native country with the death penalty hanging over him. He was a most intensely patriotic American, full of admiration for the best traditions of Puritan New England, for his mind and heart responded quickly and warmly to every struggle for human freedom.



THE LATE JOHN BOYLE O'REILLY, OF BOSTON.—FROM A PHOTOGRAPH.

There was rarely a more romantic career than O'Reilly's. His father was a respected school-master, the head of the Neville Institute, connected with Dowth Castle, County Meath, where O'Reilly was born, June 28, 1844. His mother was a Boyle, a family of scholars and priests and soldiers for generations. He learned the printer's art in the office of the Drogheda *Arms* when he was yet a boy, and he set type and did shorthand reporting for several years in various English cities.

All the while he felt inspired to do something to free Ireland from English rule, and finally he enlisted in the Fourth Hussars, known as the Prince of Wales's Own, for the purpose of spreading the principles of republicanism. He was an admirable soldier, athletic, young, and handsome. His officers were attached to him, and annoyed the impetuous boy by insisting on making him a corporal; but every time O'Reilly received his chevrons he did something to earn reduction to the ranks. The insurrection spread through the ranks of the army so swiftly as to excite the alarm of the authorities, and finally, after many failures on the part of the Scotland Yard detectives, O'Reilly and some of his comrades were arrested, tried, and convicted on the testimony of an informer. O'Reilly's conviction was on five capital charges, and he was sentenced to be shot. Subsequently the sentence was commuted to imprisonment for life, and again to twenty years' penal servitude. This was in June, 1866.

He served for a little more than a year in the prisons at Portsmouth, Portland, and Dartmoor. At the last place he and his fellow-prisoners gathered together the bones of the American prisoners of war who had been shot down by the British guards in 1814, and gave them decent burial.

In November, 1867, O'Reilly was sent in a prison transport-ship to the penal colony in West Australia, where he arrived January 10, 1868. As soon as he reached this terrible land and became the associate of convicts and ticket-of-leave men, he began to think of escaping. In this he finally secured the assistance of Father McCabe, the Catholic priest of the great parish of Bunbury, and, as O'Reilly once said, the "only good influence on the convicts in the whole region of Bunbury."

O'Reilly used to carry the warden's report to the station at Bunbury, and this task gave him an opportunity for flight. Arrangements were finally made with the Captain of an American whaler that touched at Bunbury. O'Reilly made his way by night through the woods to the shore, and after undergoing tortures from fatigue, hunger, and thirst, put to sea in a small boat, in accordance with the agreement, only to see the ship pass by without noticing him. Disappointed, he returned to the woods, and finally, after several days' anxious watching and waiting, he received word from Father McCabe that Captain Gifford, of an American whaler, would take him on board. Again O'Reilly put to sea in his boat, and this time he was picked up. The voyage was full of peril for the escaping convict. The ship stopped at Roderique, and was searched by English officers. All sorts of precautions were taken to deceive some English ex-convicts who were on board, and who knew O'Reilly; but at last the vessel got away from Roderique with its passenger, the Captain convincing the Governor that the object of his search had jumped overboard, and was drowned.

At the Cape of Good Hope, O'Reilly was transferred to another American ship, and after touching at Liverpool, again narrowly escaping arrest, he landed at Philadelphia November 23, 1869, poor and in a strange land. In 1870 he obtained employment on the Boston *Pilot* as a reporter, and had the hardihood to accompany the Fenian invasion into Canada in that capacity. In 1873 he published his first book of poems, *Songs of the Southern Seas*.

Soon afterward the proprietor of the *Pilot* having got into financial difficulties, O'Reilly and Archbishop Williams took the paper, voluntarily paying the debts of the former proprietor to the poor people who had trusted him with their savings. Since then O'Reilly has been the editor of this influential and prosperous journal. His other volumes of poems are *Songs, Legends, and Ballads*; *The Statues in the Block*; and *In Bohemia*. He was also the author of a novel, *Moondyne*.

In Boston O'Reilly was the centre of the young literary and artistic element, a leader in the Papyrus and St. Botolph Club, and foremost in athletic sports.

The place he attained in the affections of the people with whom he cast in his lot was shown last year, when the citizens of Plymouth chose this Irish Roman Catholic as the poet at the dedication of their Pilgrim Monument, and there was no one in that New England Protestant community more fit than he to celebrate the virtues of the founders of a free commonwealth.

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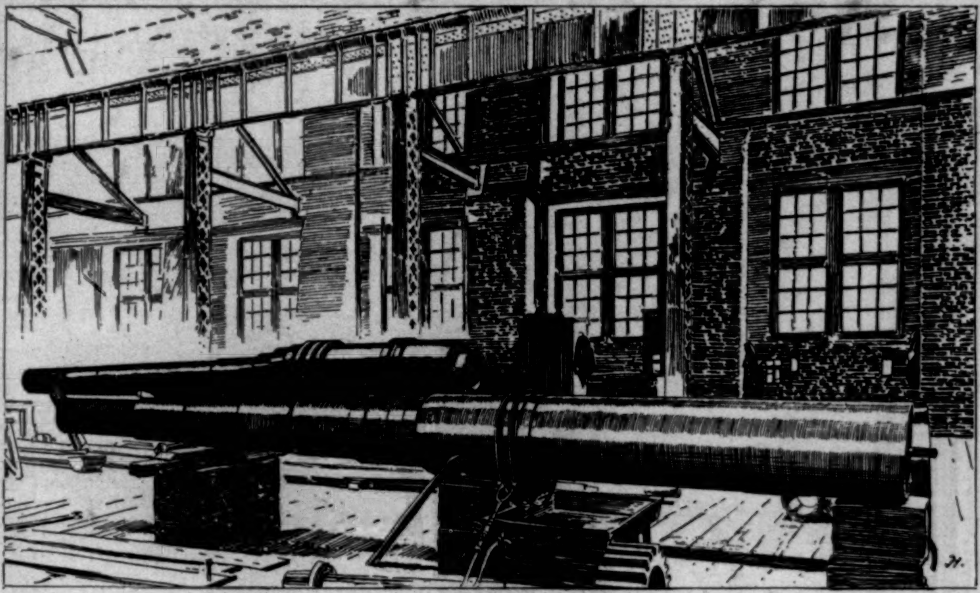
HARPER & BROTHERS, NEW YORK.

THE MAKING OF BIG GUNS.

BY HENRY LOOMIS NELSON.

FOR many years the United States were an unarmed nation. While Europe was experimenting with armor and ordnance, this country sat idly by, looking on, taking no part in the invention and manufacture of modern war material. As it turns out, this course has not been unwise. We have had no difficulties to be settled by arms. Whatever clouds of war may have lowered upon the imaginations of Dugald Dalghetys, have been to healthy minds thin and vaporous fogs. So the government has watched and studied the experiments which have been going on abroad, and which have resulted now in a victory for the target, now in the triumph of the gun, and finally in the decided and probably conclusive supremacy of the latter. Now that the armored ship has been discovered to be of little account in a fair and open fight with a high-power gun, we are building fast cruisers and battle ships and modern ordnance.



THE TUBE JACKETED AND READY FOR HOOPING.

That our counsels seem to have been governed by prudence is not due to the wisdom of Congress. Our delay is not the result of careful foresight, nor of the knowledge that the time had not come for expensive undertakings in war material. Congress halted because politicians were indifferent, because inventors were at war with the ordnance bureaus of the two services and confused the lay mind, and because political and local influences have comparatively little to do with matters pertaining to the army and navy. Professional military men would not have waited, for they have been praying constantly for the consent of Congress to take part in the interesting experiments that have been going on. In short, we have simply drifted into a policy which is very likely to save us a large part of the cost of discovering what is best.

The art of making heavy guns is one in which this country once excelled, and the Rodman cast-iron gun, the principle of which was embodied in the device of cooling the metal from within outward by the application of a stream of water, was during and immediately after the war as good a gun as existed. When smooth-bores constituted the weapon of the world, this country was in the lead, but since rifles, breech-loaders, and high-power guns have been constructed, we have been sadly behind all other nations. At present we are again entering the first rank, and are producing as good gun metal and as good guns of their class as are made anywhere.

The first advance of the United States from the old smooth-bore period was in 1872, when some of the old smooth-bores were converted into rifles. In the army the 10-inch and in the navy the 11-inch smooth-bore were changed into 8-inch rifles by the insertion of wrought-iron rifled tubes.

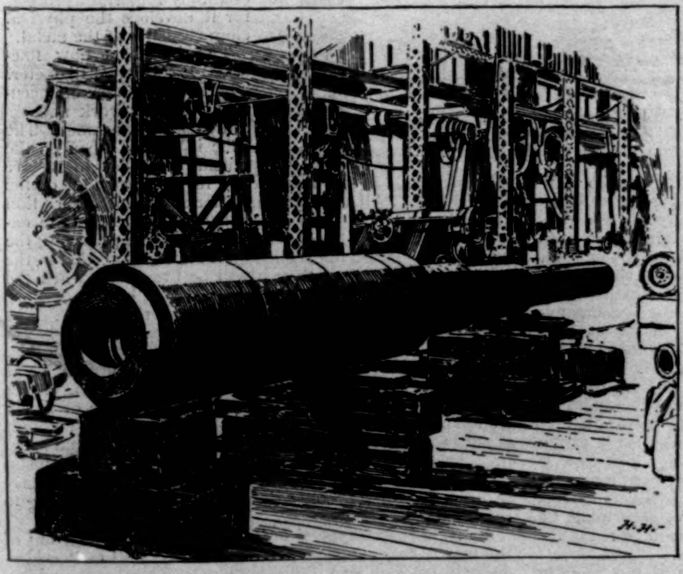
One of the first errors out of which the government made its way was its attachment to cast-iron as the proper metal for heavy cannon. Having manufactured excellent smooth-bores from cast-iron, it was thought that cast-iron rifles also would be best, although other countries which have carried on much more extensive experiments with the rifled arm had long since concluded that wrought iron was better than cast-iron, and that steel was best of all. Captain Birnie, of the Army Ordnance Corps, in his interesting paper on "Gun-making in the United States," read before the Military Service Institution in 1888, says, "Judging from the course of legislation since that period [1861 to 1871], it appears that the country has scarcely yet recovered from the paralysis occasioned by the discovery that our justly vaunted cast-iron gun metal, which had done such excellent service in the short heavy smooth-bores, was not a reliable metal for rifled guns."

For many years the built-up steel gun has been accepted by ordnance experts as the standard, but within a year or two experiments have been made in this country with other devices, and the idea of casting a steel gun has not been abandoned, notwithstanding the utter failure of every attempt. One important cause of delay in the adoption of the highest type of gun arose from the interference of politicians with the instructed officers of the army and navy. A lot of country lawyers, simply because they were clothed with legislative power for the moment, have interfered with the settlement of ordnance problems—problems that involve the determination of difficult and abstruse questions of metallurgy and mechanics.

The building up of guns is not a new nor a very recent idea. A built-up gun is one which, beginning with a central tube or core, the barrel proper, in which the interior ballistic properties of the projectile and the explosive are developed, is composed of successive layers of metal, which may be wound on as ribbon is wound on a block, or may be slipped over the tube in the manner which will be subsequently described. The results to be reached in the construction of a gun are shooting qualities and endurance, and endurance is best attained when all the component parts of the piece bear their just proportion of the strain. The disintegration of a gun of cast metal begins inside, so that a cannon may be in a most critical condition before there are any superficial signs of weakness.

As long ago as 1841 Professor Daniel Treadwell undertook to meet this difficulty by making his gun of successive rings, each ring being composed of several thin rings laid one upon the other. The larger rings were assembled into a tube by welding. Afterward Professor Treadwell used a steel tube, about which he wound a bar of iron spirally. Successful guns of small calibres, 12 and 24 pounder howitzers, were made on this pattern for both the army and navy, but some 32-pounders were failures. In Europe hooped guns were made of wrought iron as far back as 1830.

Rodman's guns are familiar. The Columbiads are built by this method, and on Rodman's lines. As has been explained already, the essential feature of the device was the cooling of the metal from the interior, in order, to use the inventor's own words, to bring "each one of the indefinitely thin cylinders composing the thickness of the gun. . . .to the breaking strain at the same instant." How greatly superior this was to the old method was shown in the trial of the first Rodman Columbiad in 1849. Two 8-inch guns were tested. One was a Rodman gun and the other was not. The latter was bursted in the 85th round; the Rodman gun withstood 250 rounds. Subsequently the superiority of the new system was shown to be even greater than this.



THE GUN TWO-THIRDS HOOPED.

There is, however, one enormous and fatal fault in all cast metal, which has been especially developed and illustrated in recent attempts to manufacture cast-steel ordnance. The casting is absolutely uncertain. Sometimes it bursts in the process of cooling; sometimes in the lathe; and very frequently cavities are discovered in the boring.

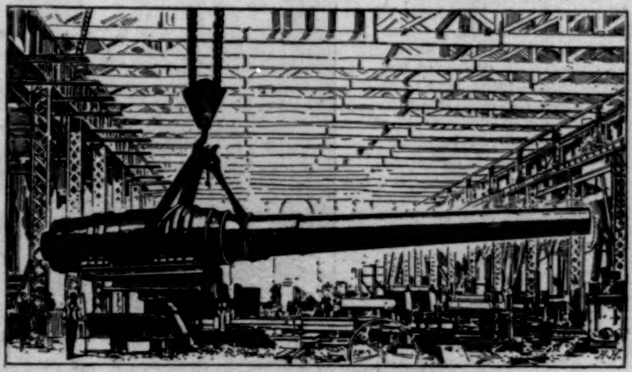
But the Rodman smooth-bores were very efficient guns, and they and the 8-inch converted rifles have long constituted the sole armament of our sea-coast defences. The calibre of these smooth-bores range from 8 to 20 inches. In 1888, according to Captain Birnie, the government possessed 210 8-inch, 998 10-inch, 305 15-inch, and 2 20-inch guns of this character. Congress has within a year made an appropriation for the establishment of a plant for gun-making at the Watervliet Arsenal at West Troy, and the work of constructing modern built-up steel guns for the army has actually begun. In the mean time the navy has made vast strides forward, and in the well-equipped foundry at the Washington Navy-yard has turned out some 6, 8, and 10-inch high-power guns, which are at least equal to any ordnance of their size in the world. The principal armament of the new ship the *Dolphin* is from the ordnance shops of the Washington Navy-yard.

Before entering upon a description of the methods by which modern artillery is constructed, it will be interesting to follow Captain Birnie further in his history of the experiments which have resulted in the evolution of the modern gun.

The Parrott rifle, which rendered admirable service during the war of the rebellion, was a cast-iron gun with a re-enforce band of wrought iron. It was the invention of the head of the West Point gun foundry at Cold Spring. The larger calibres of this pattern were unsuccessful, and aided in demonstrating the unsuitability of cast-iron for heavy rifled ordnance.

The Heavy Gun Board of 1872 examined forty inventions, and from them selected nine—three muzzle-loaders, consisting of Dr. Woodbridge's and Alonzo Hitchcock's patents, and cast-iron guns lined with wrought iron or steel tubes, four breech-loaders, Krupp's, Sutcliffe's, Thompson's, and the French and Swedish systems, H. E. Mann's patent, and Lyman's multicharge gun. For ten years after this report was made, the Ordnance Department was engaged in testing these nine systems.

The Woodbridge patent was a wire-wound gun, and was made by winding square wire around a steel core. The wire is wound obliquely, and the successive layers have an opposite twist. This operation being concluded, the gun is placed in a case and is subjected to a heat which fuses the metal, a solder composed of brass and zinc, which is poured into the interstices of the wire. After the gun was cooled it was bored. The particular gun which was constructed and tested by the Ordnance Department was regarded as a failure, but there is a very strong belief among artillerists that a wire-wound gun, like that which Dr. Woodbridge invented, is an excellent piece of heavy ordnance. The strength of the gun has been greatly increased by recent devices.



LIFTING A 10-INCH GUN.

The gun which was practically adopted as the result of the labors of the Heavy Gun Board was the converted 8-inch rifle, the basis of the changed piece being the 10-inch Rodman smooth-bore. There were various reasons suggested by the character of our forts, the uselessness of the 10-inch smooth-bores, and other things not particularly interesting to the general reader, which governed this selection. Experiments were made with both wrought-iron and steel tubes, and the relative merits of the two methods—inserting the tube at the breech and at the muzzle—were tested. The casing of the rifle was cast-iron, and the original bore, 10 inches, was slightly enlarged for the purpose of receiving the tube. The wrought-iron tubes were formed by coiling and welding bars of wrought iron, and they were re-enforced by a jacket of the same material.

While these experiments with iron were going on, the superiority of steel as a gun metal was becoming more and more generally recognized, and by the beginning of the last decade the navy, followed very soon by the army, took steps looking to the encouragement of the manufacture of a domestic steel gun metal. It is worthy of note that the navy has been in advance of the army in making great guns, and this is largely due to the greater intelligence with which Congress legislates concerning naval affairs.

The steel tubes for the built-up guns are immense forgings, weighing from two to fifteen tons, and the metal must be of an especially fine quality. Such metal had not been made in this country in 1881, but the ordnance departments of the two services had adopted a very high standard, and comparatively little of the foreign steel satisfied it. The result of the efforts to procure home-made steel is therefore doubly gratifying. The officers who have had charge of the task of gun construction have secured a more constantly acceptable material, and American steel manufacturers have demonstrated, so far as the quality of their product is concerned, that their industry is no longer in its infancy.

Up to this time, while tentative attempts to procure a good breech-loader were made, nothing whatever had been accomplished in that direction, and all the guns that the country possessed were muzzle-loaders, most of them smooth-bore, and some of them the 8-inch converted rifles. Practically they were of little value. The 15-inch smooth-bore, with a charge of 130 pounds of hexagonal powder, at an elevation of 20 degrees, throws a projectile weighing 450 pounds a distance of 3.75 miles. This projectile will pierce 10 inches of armor at 1000 yards. The initial velocity is 1700 feet to the second, and a muzzle energy of 9000 feet-tons. The 10-inch smooth-bore carries a projectile weighing 128 pounds with a muzzle energy of 2000 feet-tons. It is useless in modern warfare. This gun converted into an 8-inch rifle carries a projectile of 180 pounds, and will pierce 8-inch armor at a distance of 1000 yards. These facts show precisely our defensive condition against high-power guns, whose range and initial velocity are so great that they carry projectiles very much heavier than those of the smooth-bores and converted rifles to a distance ranging from 6 to 12 miles. The true value of this great range will be explained more at length. For the present it is only necessary to say that of two guns, the one whose trajectory is the flatter, whose fire is the more direct, is the deadlier weapon, because the space within which the target may be hit, called the "dangerous space," is immensely greater.

The making of American steel tubes for the conversion of the cast-iron smooth-bores opened a new era in the history of gun-making in this country, for the first order given for forgings has resulted in the adoption for both services of the modern built-up high-power steel gun, and the erection of plants for both services.

Before 1881 the South Boston gun factory had made a 6-inch low-power gun, but in that year the Bureau of Ordnance of the navy determined to construct steel breech-loading high-power guns. In September there were asked from fifteen steel-makers bids for the steel required for a 6-inch gun. Only two answers were received—one from the Midvale Steel-works, of Nicetown, Pennsylvania, and the other from Park Brothers, of Pittsburgh. In 1882 a tube, jacket, and breech-plug were ordered from Park Brothers, and they were delivered for inspection in 1884. The plug only was accepted. In June, 1882, the material for two guns was ordered from the Midvale company, and since then these works have constantly furnished material.

In the mean time the government has enlarged and modernized the ordnance foundry at the Washington Navy-yard, and within the year has established the plant already spoken of at the Watervliet Arsenal. At the former shops all the guns for the navy are assembled and finished, the forgings being brought from the works at Nicetown and Bethlehem, under contracts made by Secretary Whitney.

The manufacture of these great forgings was practically the inauguration in this country of a new and important branch of the steel industry, and the successful bidders were obliged to add to their existing plant new and different facilities for carrying out their contracts with the government. It ought to be mentioned that Congress has inserted in all the laws giving authority for gun construction that the material used shall be of home production.

The forgings are of open-hearth steel, forged to within from two to three inches of the finished diameters. The final turning and boring of the gun are done at the ordnance shops. Tubes, jackets, and hoops are rough-bored at the works, and the bore is finished at the ordnance shops. All forgings are annealed, oil-tempered, and then annealed again. The tests to which the forgings were submitted by the Ordnance Bureau of the Navy Department were very severe, and the result has been proportionately gratifying. There is now no better gun metal in the world than that which is delivered at the Washington Navy-yard and the Watervliet Arsenal. Under the first contract the forgings of tubes, jackets, and hoops were delivered in rough unturned and unbored cylinders. Under recent contracts they are slightly advanced from the first stage.

It now becomes necessary to explain to the uninformed reader the parts of which a modern high-power gun is composed. In the first place, the fundamental part of the piece, the base of it, is the steel tube. This is cylindrical, and it reaches from the muzzle to the breech, and varies in length from 15½ feet to 32 feet, according to the calibre of the piece. It is the gun itself, all the other parts being added to strengthen it; it is the gun-barrel. This barrel may be wound with steel wire, or it may be secured by steel jackets and hoops. The latter method is the one at present in use by our government for the large guns which it is manufacturing. These jackets and hoops are very large steel cylinders which fit over the tube. They vary in thickness according to their relative positions on the gun-barrel, the largest and thickest being the jacket which surrounds the chamber of the gun, including the breech-plug and its mechanism. The hoops are placed on the gun one after the other, and afterward the trunnion band—the trunnions being the projecting pieces of metal on which the gun rests in its carriage—is screwed on.

The general appearance of a great gun is shown in the picture of the 10-inch gun as it is being lifted by the travelling crane in the ordnance shop of the Washington Navy-yard. The processes of construction are shown in the illustrations of the stages through which the 6-inch gun goes in the course of its building up. First there is the plain tube; then it is rough-bored; then the jacket is shrunk on, an extremely interesting and delicate process, which will be described hereafter, and which is shown in the accompanying illustrations; then there is the turning of the exterior after all the hoops are on, and the boring of the tube and the chamber. The appearance of a gun with only the jacket and the tube, and then with tube, jacket, and hoops, then with all its parts, including the trunnion band, is admirably shown in these pictures. A most interesting picture is that of the interior of the 10-inch gun which was made at the Washington Navy-yard for the *Miantonomoh*. The view is through the chamber, the breech-plug having been removed, and through the rifled barrel. The bore is about 25 feet long, and the gun is the largest that has yet been made by the government, although machinery will soon be ready for the manufacture of 12, 13, and 14 inch guns.

It ought to be said that the excellence of our modern guns, and the admirable machinery which has been set up and is in operation at the navy and army ordnance shops, are due entirely to the skill and intelligence of the officers of the two services. Years before Congress was prepared to make an appropriation for the work of building modern guns, United States officers were carefully studying the experiments that were in progress abroad, and were using the small means at their disposal to the utmost, so that when Congress could no longer postpone the work there was ready a body of intelligent men prepared to go on with it. By a careful husbanding of its resources the Ordnance Bureau of the army had actually begun the manufacture of a high-power gun before Congress made a special appropriation for the purpose. It would result only in making invidious distinctions if I were to undertake to name the officers who have won distinction in the art of making guns. The chiefs of the two bureaus, Commodore Siccard and General Benet, have been seconded by younger men, who have worked with an enthusiasm and with that intimate knowledge of their profession which is one of the distinctions of the officers of the army and navy of the United States. At the Washington Navy-yard there have been built at this writing 46 completed guns, while 26 other guns in the shops are in various stages of manufacture.

The bringing together of its various parts is called the assembling of the gun, and the first step in this process is the "shrinking on" of the jacket. As has been stated already, the work is done in a deep pit, and it consists, to describe it in a way that will make it clear to the unprofessional mind, of not only slipping the jacket over the tube, but in slightly compressing or shrinking the tube, so that its bore is smaller after the completion of the process than it was before. This is effected by expanding the jacket by heat and slipping it over the tube. When it cools it squeezes the tube, because its interior diameter is really smaller than the exterior diameter of the tube over which it has been placed.

The tube is first placed in a lathe, and its superficial roughness is decreased by turning. It is exceedingly interesting, this quiet process, by which the sharp instrument cuts off great shavings from its kindred metal as the tube revolves. More interesting and wonderful still is the boring, which is done by a lathe with an enormous shank capable of penetrating the bore from end to end. The cutting instrument at the end of this is a great hog bit, for the first boring. Subsequently a double instrument is employed. The hog bit cuts into the tube at the rate of about twenty inches a day. The tube is rough-bored to within three-eighths of an inch of its finished diameter. The margin left in the process of rough turning is about the same.

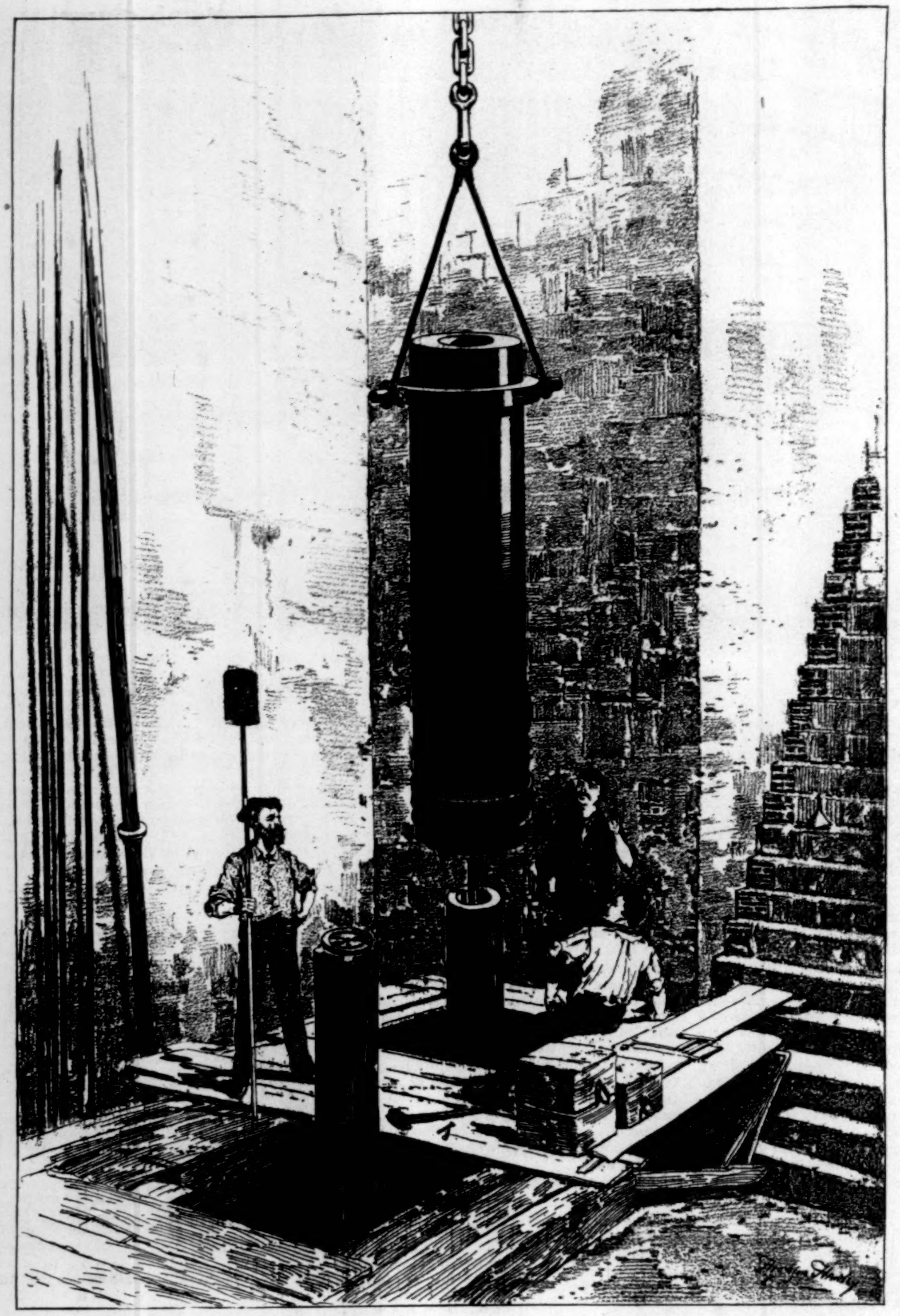
The rough turning of the jacket is by a tool of another kind. It is hollow, so that there is cut from the forging a solid core, which may be used subsequently for making howitzers. The jacket is bored and turned to within a quarter of an inch of its finished size.

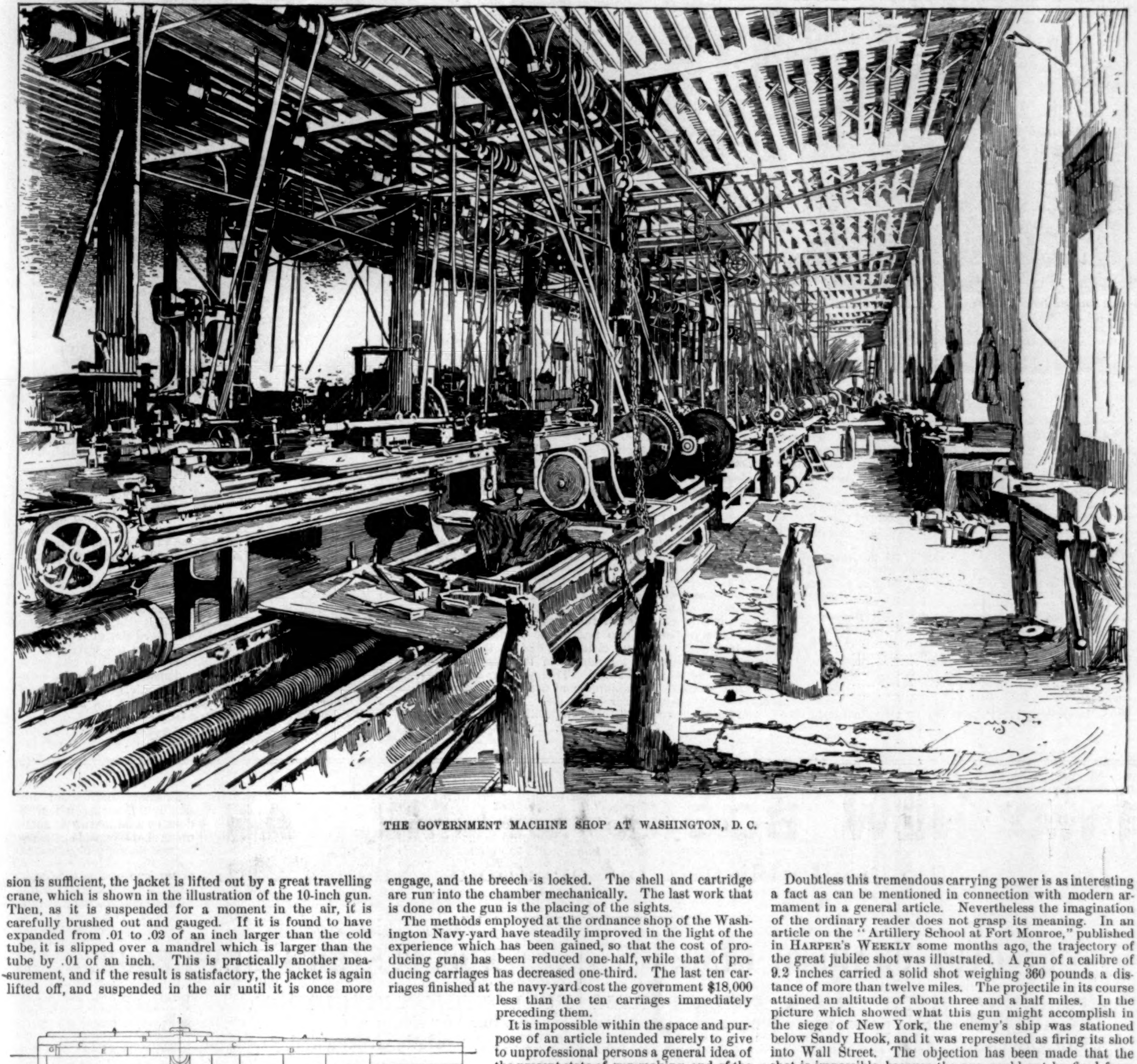
After this work has been done at the government shops, the tube and jacket are sent back to the factory to be oil-tempered and annealed. They are heated in a wood fire, and then they are dipped several times in an oil bath. This is an exceedingly important process, for it develops the physical characteristics of the metal.

The jacket is now fine-bored to its proper diameter. This is a very nice and accurate piece of work and requires skilled workmen. The tube is turned down on the outside in order to receive the jacket. It is also made ready for the reception of the chase hoops. All the parts mentioned in this description of the building up of a gun are shown in the diagram entitled "Section of Breech-loading Rifle." In preparing the tube, what is called the shrinkage is allowed for; that is, the tube is slightly larger than it will be eventually when the gun is finished.

The next work in order is done in the shrinking pit. The tube is placed erect in the pit, muzzle downward. A box is built around it, so that not more than half its length is visible. In an iron flask, also in the pit, the jacket is heated. The utmost care is required in conducting this operation. From beginning to end the work is supervised by the officer in charge of the pit. The jacket is carefully cleaned before it is put in this flask, when it is covered in, its breech end being up, a wood fire is built around the flask or box. The metal is heated to about 500 degrees. It must expand sufficiently in order that it may slip over the tube which is waiting to receive it.

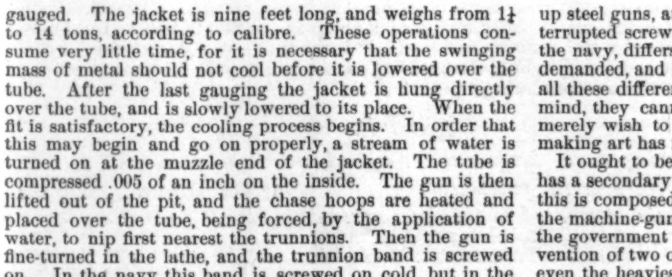
Many tests are applied before the jacket is taken out of the heat. For example, the required heat will melt solder, and will not melt lead. When it is supposed that the expan-


SHRINKING THE JACKET.



THE GOVERNMENT MACHINE SHOP AT WASHINGTON, D. C.

sion is sufficient, the jacket is lifted out by a great travelling crane, which is shown in the illustration of the 10-inch gun. Then, as it is suspended for a moment in the air, it is carefully brushed out and gauged. If it is found to have expanded from .01 to .02 of an inch larger than the cold tube, it is slipped over a mandrel which is larger than the tube by .01 of an inch. This is practically another measurement, and if the result is satisfactory, the jacket is again lifted off, and suspended in the air until it is once more gauged. The jacket is nine feet long, and weighs from 1¼ to 14 tons, according to calibre. These operations consume very little time, for it is necessary that the swinging mass of metal should not cool before it is lowered over the tube. After the last gauging the jacket is hung directly over the tube, and is slowly lowered to its place. When the fit is satisfactory, the cooling process begins. In order that this may begin and go on properly, a stream of water is turned on at the muzzle end of the jacket. The tube is compressed .005 of an inch on the inside. The gun is then lifted out of the pit, and the chase hoops are heated and placed over the tube, being forced, by the application of water, to nip first nearest the trunnions. Then the gun is fine-turned in the lathe, and the trunnion band is screwed on. In the navy this band is screwed on cold, but in the army it is expanded by heat and slipped on. The muzzle and breech ends of the gun are now faced, and the gun is fine-bored. The chamber is also reamed out, the reamer employed being the exact shape of the bore, which is peculiar, for there are two cones and an intervening cylinder between the chamber and the rifled part of the bore.



SECTION OF BREECH-LOADING RIFLE.

A. Hoops. B. Jacket. C. Tube. D. Bore. E. Chamber. F. Trunnion Band. G. Screw-Box.

The gun is now complete, with the exception of rifling. This is done by an ingenious contrivance which must be seen in order to be understood by any one who is not a mechanic. The rifling bar, having a groove with the same curve as that which is intended for the groove of the piece, travels through the bore, cutting eight grooves at once. As these grooves are larger at the breach than at the muzzle, other cutters are needed for the finishing. The interior appearance of the rifled barrel and of the breech is shown in the accompanying illustration of the 10-inch gun.

The breech mechanism is very simple, although great care is required in the manufacture of the plug, owing to the enormous influence exercised upon metals by the heavy charges and projectiles of the modern gun. This plug turns easily on its centre, so that the breech can be opened and closed very quickly. The interrupted screw permits the locking and unlocking of the plug, the threads of which, when the breech is first closed, corresponding with the blanks in the breech. When the plug is turned the threads engage, and the breech is locked. The shell and cartridge are run into the chamber mechanically. The last work that is done on the gun is the placing of the sights.

The methods employed at the ordnance shop of the Washington Navy-yard have steadily improved in the light of the experience which has been gained, so that the cost of producing guns has been reduced one-half, while that of producing carriages has decreased one-third. The last ten carriages finished at the navy-yard cost the government $18,000 less than the ten carriages immediately preceding them.

It is impossible within the space and purpose of an article intended merely to give to unprofessional persons a general idea of the present state of gun-making, and of the enormous advance of ordnance since the days when our Rodman smooth-bores were the best weapons of their character in the world, to describe every experiment which has been made, or all the devices which are still untried and not quite determined on. There are many other guns than the built-up steel guns, and many breech mechanisms besides the interrupted screw. The army gun, though similar to that of the navy, differs somewhat from it in weight, in the charge demanded, and in the weight of its projectile. And while all these differences are very interesting to the professional mind, they cannot command the attention of those who merely wish to know generally the point which the gun-making art has reached.

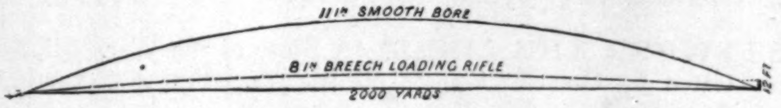
It ought to be stated, however, that every ship in the navy has a secondary battery, and the effective weapons of which this is composed are rapid-firing guns, which are superseding the machine-guns. The Hotchkiss guns are now in use, but the government is making the Driggs-Schroeder gun, the invention of two officers of the navy. These rapid-firing guns, even the heaviest of them, are so nicely balanced that they may be aimed in any direction, and elevated or depressed by a single man. The weapon is braced against the gunner by means of a shoulder-piece.

In addition to the heavy guns, some of which have been completed at the Watervliet Arsenal, the army has constructed a number of admirable 3.2-inch steel field-pieces, which are in process of distribution to the light batteries. There has also been made a modern 12-inch mortar. The utility of mortars has been a vexed question among ordnance and artillery officers, the main objection to them being that they are so inaccurate as to be ineffective. However, the government has determined upon the employment of mortars, so that the dispute is at least authoritatively settled. The modern mortar differs radically from the old-fashioned arm. It is a developed howitzer of enormous power. It may be fired at any elevation, and even directly, something impossible with the old mortar. Like its kindred, the modern high-power steel guns, the new mortar is a breech-loader. Fired at an angle of 45 degrees, it projects a shell weighing 630 pounds a distance of nearly six miles.

Doubtless this tremendous carrying power is as interesting a fact as can be mentioned in connection with modern armament in a general article. Nevertheless the imagination of the ordinary reader does not grasp its meaning. In an article on the "Artillery School at Fort Monroe," published in HARPER'S WEEKLY some months ago, the trajectory of the great jubilee shot was illustrated. A gun of a calibre of 9.2 inches carried a solid shot weighing 360 pounds a distance of more than twelve miles. The projectile in its course attained an altitude of about three and a half miles. In the picture which showed what this gun might accomplish in the siege of New York, the enemy's ship was stationed below Sandy Hook, and it was represented as firing its shot into Wall Street. The objection has been made that the shot is impossible, because the gun could not be fired from the deck of a vessel at the required angle. No competent authority, however, will contend that it would be impossible during a siege to arrange a method by which the full capacity of any gun could be made available to those who were carrying it on.

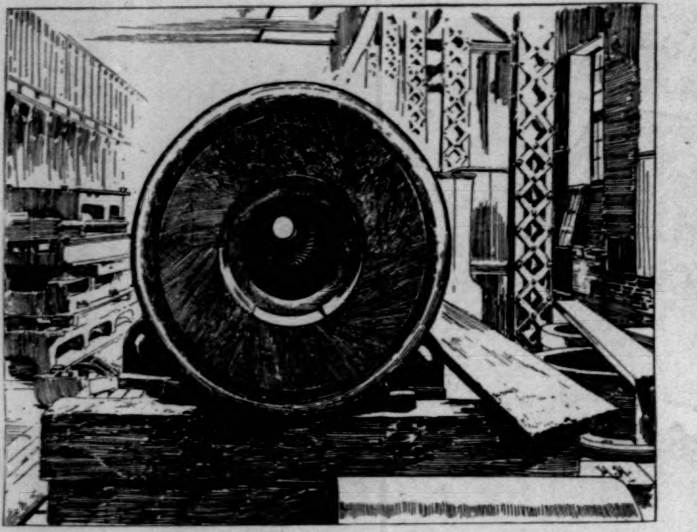
It is true, however, that the jubilee shot was fired for the purpose of ascertaining the utmost range of the gun, and it is equally true that the value of the high-power modern gun does not lie in the distance which it may send its projectiles. Human nature has not changed with the advance of the arts of war. At least fighting man, when he is actually engaged, is very like what he has been always. That peace is more the normal condition of society than it was is somewhat due to the more destructive nature of war. But, however that may be, fighting will not be carried on at long range in the future any more than it has been in the past. Hostile ships and armies will get as close together as possible, and will use their weapons to the best advantage.

The high-power gun, as has been already stated, is of especial value because the space within which it works destruction is very much greater than the dangerous space of an old-fashioned low-power gun. This is due to the flatness of its trajectory. Let us assume that a 11-inch smooth-bore and an 8-inch high-power gun are firing at the same target from the same distance. The trajectory of the two guns may be rudely represented by the accompanying diagram.

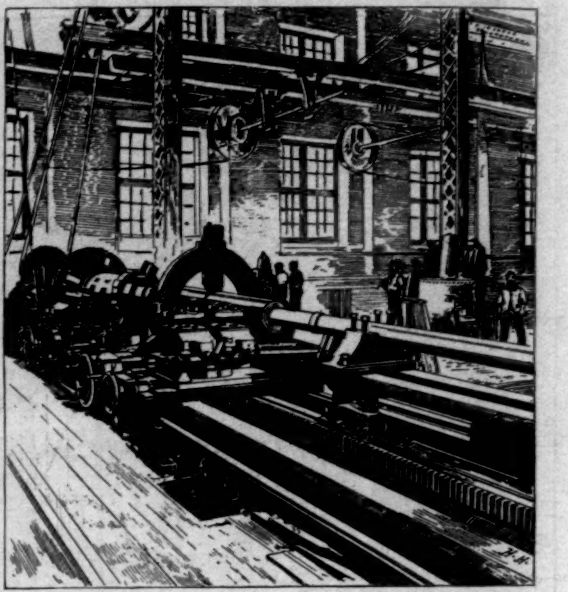


TRAJECTORIES OF 11 AND 8 INCH GUNS.

The dangerous space of the two shots is indicated by the target, the flatter trajectory of the high-power gun being represented by the dotted line. These lines are purely arbitrary, and are given simply to show what is meant by the phrase "dangerous space," and by the assertion that the flatter the trajectory, the greater it is. The trajectory is flatter because the projectile starts with such a velocity that it has great staying qualities. It will travel an enormous distance, and it is therefore unnecessary, in order that the projectile may reach the target, to give the gun nearly so much elevation as the old smooth-bores required.



INTERIOR OF 10-INCH GUN.



THE SIMULTANEOUS PROCESS OF BORING AND FILING THE GUN.

The muzzle velocity of a modern 8-inch gun of the navy pattern is about 2000 feet to the second, while that of the old 11-inch gun converted into an 8-inch rifle is about 1400 feet to the second. The distance which the modern gun would carry is twice as great as that which the old cannon would send its projectile. It will be readily understood, of course, that as the high-power gun may be fired more directly at its object, it is very much more accurate than the old gun.

The following table of the weights of the projectiles of the new guns, and the distances which they will carry, will give the reader some idea of the enormous power of modern ordnance:

Calibre of Gun. Inches.	*Weight of Shell. Lbs.*	*Distance. Miles.*
6	100	8
8	250	10
10	500	12
12	850	13
13	1100	14
16	2200	15

Some interesting facts are given by Captain Birnie concerning the 8-inch steel rifle which was constructed for the army, and in accordance with the plans of the Ordnance Department. During the firing of 101 rounds with this piece, 2 rounds were fired with a powder charge of 65 pounds, 12 of 85 pounds, 3 of 95 pounds, 84 of from 100 to 113 pounds. The weight of the projectile varied from 182 to 302 pounds. The muzzle velocity ranged about 1800 to more than 2100 feet a second. Captain Birnie makes the following interesting statement concerning the gun—a statement that may be taken as indicative of the character of the modern high-power gun which has been adopted by the government;

"The accuracy of the piece is remarkable. Of five shots following one sighting shot, fired at a target, range 3000 yards, all were placed within a circle of six feet in diameter."

With the perfection of the gun, changes have been necessitated in carriages, gunpowder, and vessel construction. The modern gun-carriage has been a problem of no less importance than that presented by the guns themselves, for ordnance is of no value unless there is a platform from which it may be discharged. An old-fashioned carriage from which the smooth-bores could be safely fired would be turned into a missile against the men who worked the piece if a high-power gun were discharged from it. Therefore pneumatic and hydraulic gun-carriages, with varying devices for the absorption of the recoil of the piece, have been invented.

The navy has adopted the hydraulic cylinders, which are arranged on an incline, so that the gun in recoiling works up the ascent against the pressure of a heavy liquid, and when the recoil is exhausted it runs downward, and so out to the battery—that is, into position to be discharged again. Each cylinder has two chambers, and as the pistons are pushed backward by the motion of the gun, the liquid is forced from the rear forward. The cylinders are made of a bronze invented by Dahlgren, and used in the manufacture of the guns which bear his name. Notwithstanding the well-known virtues of this composition, the force of the pressure in the cylinder when the piece recoiled was so great that the liquid was forced through it, and the cylinders were said to weep. In order to remedy this, the metal is now thickly painted with lacquer, and then is put under such an immense pressure that the varnish is forced into the pores of the bronze, filling them up, and preventing the exudation of the liquid.

In order to obtain the full effect of the power of the gun a large powder is used, which burns slowly, the gases discharged from it accumulating as the shot travels through the bore of the gun.

Notwithstanding the greatly increased size of the modern gun, the complexity of its carriage, and the weight of its charge and projectile, the gun crew required to manage it is very much smaller than that demanded by the old-fashioned muzzle-loader, smooth-bore, or rifle. The wonder of this tremendous engine of destruction lies not more in its power than in its delicate balance.

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NOTE.

☞ *Owing to the large number of advance orders received, it was necessary to postpone the publication of "Following the Guidon" from the date previously announced to the date mentioned above.*

BOOTS AND SADDLES: Life in Dakota with General Custer. By Mrs. Elizabeth B. Custer. pp. 312. With Portrait. 12mo, Extra Cloth, $1.50.

No better or more satisfactory life of General Custer could have been written Indeed, we may as well speak the thought that is in us, and say plainly that we know of no biographical work anywhere which we count better than this. . . . Surely the record of such experiences as these will be read with that keen interest which attaches only to strenuous human doings; and as surely we are right in saying that such a story of truth and heroism as that here told will take a deeper hold upon the popular mind and heart than any work of fiction can. For the rest, the narrative is as vivacious and as lightly and trippingly given as that of any novel. It is enriched in every chapter with illustrative anecdotes and incidents, and here and there a little life story of pathetic interest is told as an episode.—*N. Y. Commercial Advertiser.*

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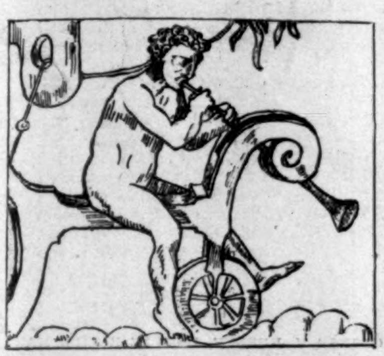
CYCLING IN THE UNITED STATES.

BY F. P. PRIAL.

Of the earliest conception and birth of the manumotor we have no certain knowledge. It is buried beneath the dust of time. We change our history of the sport every season, since new evidence on the subject is coming to light each year. Up to date the earliest manifestation of the manumotive idea is found, curiously enough, in the old English church of Stoke Poges, four miles from Windsor, and famous because its church-yard inspired the immortal "Elegy," and because the body of the poet lies there. The idea of a cycle is found in a stained-glass window, dated 1642, the drawing on which represents an idealized male figure astride a cycle. Public attention was brought to this window by Mr. T. B. Marsh, a well-known litterateur and member of the English Society of Cyclists. A drawing of the window is here reproduced.



TRACING FROM A STAINED-GLASS WINDOW IN AN OLD ENGLISH CHURCH: DATE, 1642.

From 1642 we take a leap to 1776, during which year a professor at Trinity College, Dublin, makes reference to a manumotive machine, the illustrations of which were published in the *Gentleman's Magazine*, August, 1769, p. 376; *London Magazine*, August, 1769, pp. 468, 469; and *Universal Magazine*, September, 1769, pp. 132, 133. How long the awkward and cumbersome machine illustrated had been before the public is not to be ascertained, but certain it is that the invention and construction of manumotors had received some attention. The drawings of the *London Magazine* were entitled "Mechanical Projections of the Travelling Chaise without Horses, shewing plainly by inspection the Constitution of these Machines. By John Vevers, Master of the Boarding-School at Ryegate in Surrey."

This cumbersome machine weighed several hundred-weight, and was worked by a footman, who stood in a kind of box built on the rear axle, and who, standing on the lever planks, alternately depressed each lever.

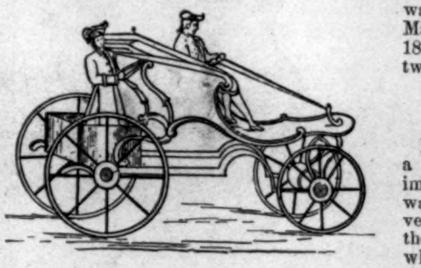
In the *Journal de Paris*, July 27, 1779, the machine of Messrs. Blanchard and Masurier is shown. The new vehicle exhibited in the Versailles Palace court-yard before Marie Antoinette and her court seems to have been a copy of the English machine. The machine was further improved by one M. Ricard, and was capable, provided the man-motor flunky was of good heft, of being driven at *three miles per hour*.

The Revolution appears to have stopped invention and improvement in France, and it was not until 1816 that the cycle again came to the surface. In that year one of the sights of the Luxembourg Gardens was a two-wheeled machine connected by a perch, or beam, on which M. Nièpce, of Châlons (known as the "Father of Photography"), aired himself, getting great speed out of the machine. This contrivance was termed the célérìpère, afterward céléripède, and by the English, celeripede. The rider sat on the beam and propelled himself by a "walking" motion, or by "pushing the ground behind him."

The celeripede was quickly improved upon in France, but a distinctly improved vehicle was invented and used by Baron Drais de Saverbrun in 1818. The baron made practical use of his invention when attending to his duties as "Master of the Woods and Forests" of the Duke of Manheim, of Manheim-on-the-Rhine. The baron added a rest for the hands and an improved steering-rod. The machine was called the Drasienne, Draisine, or Drasina. The patent was obtained February 17, 1818, by Louis J. Dineur, of Paris.

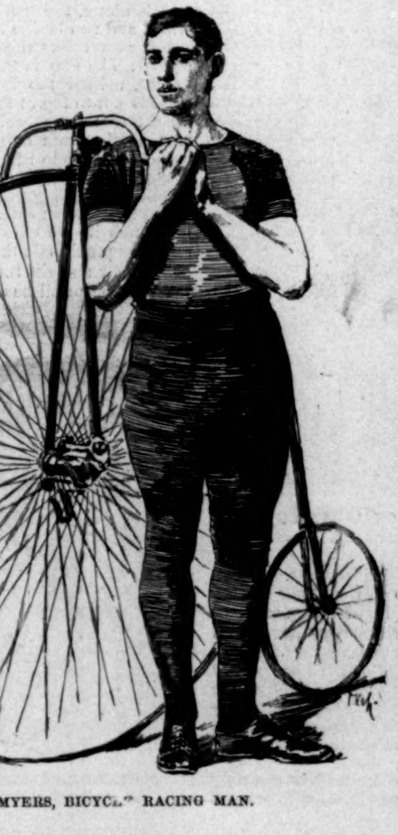
The machine was first shown in London in 1818, and was at once patented by Dennis Johnson, a coach-maker. Johnson's machine took the fancy of the young bloods of the day, and hundreds were made and sold. The cost of the machines was so great that only the dandies rode, and a curious sight they were, madly striding through the mud, for the primitive mode of propulsion by touching the toes to the ground had not been improved upon. The machine was called the pedestrian curricle, the hobby-horse, or dandy-horse.

The new sport, patronized as it was by the swagger youth of London, at once attracted the facile pencils of Cruikshank, Rowlands, and others, who quickly caricatured it into oblivion, until only the drawings remain to show that such a fad ever existed.



MANUMOTIVE CARRIAGE: 1769.

Mr. Blackwell, of the Canonbury Cycling Club, of England, has the most valuable collection of these drawings, and to one of them attaches a special interest. It shows the stout Prince Regent lying lengthwise on a hobby-horse, face downward, and on his back is seated a still stouter dame. The curious part of the drawing is found on the front wheel, to which are affixed cranks. Here the artist was ahead of the inventor, for it was nearly half a century later before cranks were used.



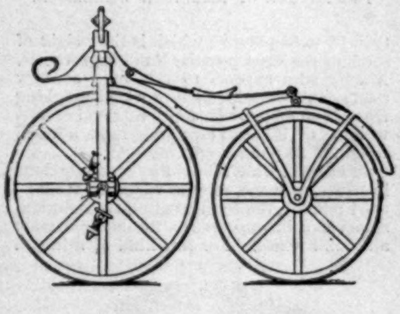
BERT MYERS, BICYCLE RACING MAN.

In 1826 W. K. Clarkson was granted a patent on the Drasina. In 1821 a most important improvement was made by Lewis Gompertz, of Surrey, England, who supplemented the leg action by a lever device, by which the rider, by the use of his arms, drove the front wheel. In 1830 M. Dreuye improved the Draisine so materially that the French government placed several rural postmen on it; but the snows of the first winter proved the machine worthless, and it was abandoned.

In 1835 a new epoch is inaugurated by the invention of a rear-driving dwarf safety bicycle by Gavin Dalzell (born August 29, 1811; died June 14, 1865), a cooper in Lesmahagow, Lanarkshire, Scotland. Dalzell invented a machine which could be propelled without having to touch the feet to the ground for motive power and balance. A pace of twelve miles per hour was gotten out of this machine.

From 1835 until 1865 but little progress was made in cycle invention, though many so-called improvements were patented and scores of cumbersome masses of metal saw the light.

In 1865 Pierre Lallement, a workman employed by M. Michaux, a Paris carriage manufacturer, appeared on the Place de la Concorde mounted on a *crank-driven* wooden bicycle, which became the nucleus of the present "tall" or ordinary bicycle. Not having any capital, he sold his patent to his employer, who exhibited the wheels in the Paris Exposition of 1867.



LALLEMENT'S BICYCLE: 1866.

Shortly after inventing his wheel Lallement emigrated to America. At New Haven he built one of his machines, which attracted the attention of one J. Carrol, who, with Lallement, took out a patent, which afterward came into the possession of the Pope Manufacturing Company. On August 1, 1886, Edward Gilman obtained patents on a two-wheeled, crank-driven velocipede.

THE DEVELOPMENT OF THE MODERN BICYCLE.

Lallement having furnished the basis of a new cycle, it was quickly taken up and improved in detail. In 1867 the first bicycle was built in England by T. Johnson, of Wolverhampton. Another reliable claimant for the disputed honor was the late H. Clarke, who stated that he made bicycles for export to France in 1867–68. During the year 1868 Charles Spencer, a noted gymnast, brought to England a bicycle which he had purchased in Paris; and to him and his two friends R. B. Turner and M. J. Maynall is due the credit of popularizing bicycling in England.

In America the Hanlon Brothers, a famous troupe of travelling acrobats, spread the knowledge of the bicycle, which they used in their performances. The Hanlons first used the small rear wheel and adjustable pedals. In December, 1868, J. Hastings introduced the use of the rubber tire; and toward the end of that year it is recorded that the Coventry Sewing-Machine Company, Limited, now the Coventry Machinists' Company, Limited, received a large order for bicycles from their Paris agents.

The first radical change in cycle construction came with the Phantom, which was shown at Crystal Palace, May 27, 1869, by Reynolds & May. In the Phantom the use of wood was discarded, iron was used, also rubber tires, and the wheel was grace itself compared to the bicycles that had gone before it.

After the Phantom, inventions multiplied thick and fast in England, many of the ideas introduced being retrogressive rather than progressive. In 1871 W. H. J. Grant invented a new rubber-covered pedal, to be pushed with the *ball of the foot*. Hitherto the power had been applied with the middle arch of the foot, directly under the instep. He also introduced red rubber tires, cemented into crescent steel rims. In 1871 M. Magee, of Paris, manufactured a wheel entirely of iron, steel, and rubber, increasing the size of the driving-wheel to 48 inches, and reducing the size of the rear wheel to 24 inches. In 1872 Starley & Smith started to make wheels, and no man introduced more new features than James Starley, who became known as the "Father of the Bicycle." Starley manufactured the Ariel.

From 1874 to the present day the demand for cycles has been so great that the trade increased every year, and much time, money, and ingenuity were spent looking for that "something better" for which the cycling world craved. The result was that the Patent-Office was choked with claims and specifications, and the scrap-heap grew sky-high. There were a number of temporary runs on new ideas, but of the numberless wheels produced the following types are now regarded as the standard, being popular according to the order in which they are named: safety bicycles, ordinary bicycles, single tricycles, tandem tricycles, and tandem bicycles.

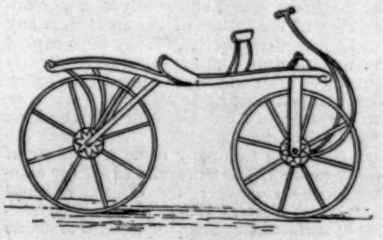
The trade in England fairly sizzles around Coventry, from which city car-loads of wheels are shipped every day to all the countries of the world. There are scores of manufactories in that city, and there is also considerable productive plant in Wolverhampton and Birmingham. The more important makers have London and Paris offices, and sell to retail dealers throughout England. Some of the makers are represented in America directly or indirectly.

The trade in England is something enormous, and it is estimated that there are over three hundred thousand riders in Great Britain. The high grade wheels run from £19 to £21 retail, but the list prices are cut, even to retail buyers. At the Stanley Show, first held in 1878, seventy machines were exhibited by the makers; in the 1880 show 150 wheels were shown; in 1885, 280; and in 1890, 1481. These figures tell clearly the growth of the trade.

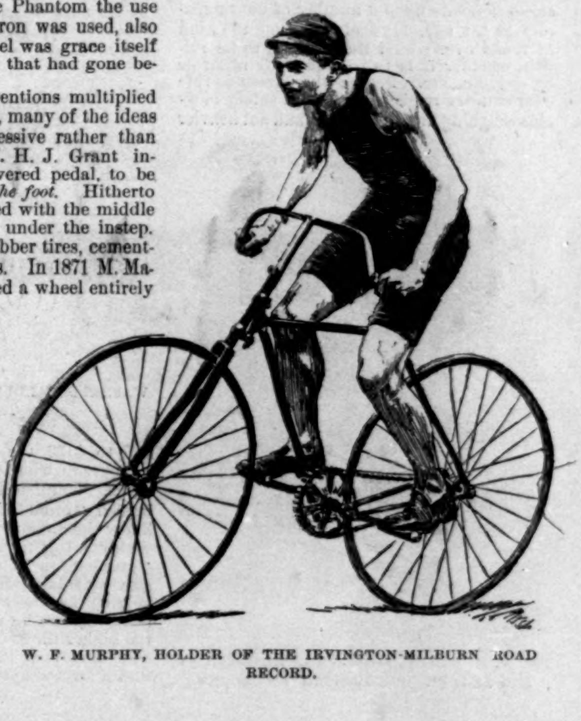
At the present time the English makers are devoting all their time and ingenuity to turning out sterling good safety bicycles. There is a very limited demand for "ordinary" bicycles, while the tandem safety has not met with the favor expected. The ladies still ride tricycles, being slow to follow the example of their American sisters, who are taking to safeties almost to the exclusion of the tricycle.

The introduction of the cycle into America is easily sketched. First we have the appearance, at New Haven, of Lallement and his bone-shaker or wooden bicycle. Then we have the bone-shaker craze of '68, '69, and '70, during which time riding became the fad, and riding-schools sprang up, mushroon-like, all over the country. The bone-shaker craze has been paralleled by the roller-skating epidemic, which died the death a few years ago, leaving the land marked with ark or barn-like buildings as symbols of the visitation.

After 1870 the wooden bicycle disappeared almost absolutely, and there is a blank in the use of the cycle until 1876, when John Keen and Dave Stanton brought over racing bicycles and gave exhibitions throughout the country. In 1877 Alfred D. Chandler, a Boston law student, brought over a bicycle, and introduced it to the notice of a number of his friends, who had wheels brought over for their use. Thus the modern bicycle was

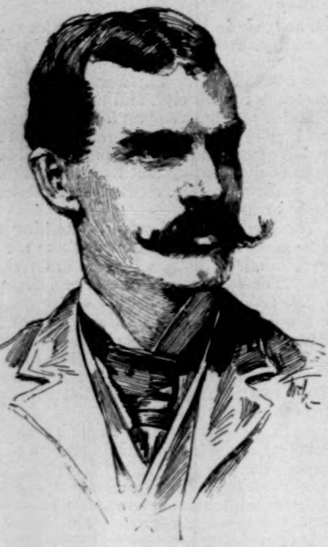


THE ENGLISH DANDY-HORSE OF 1820.



W. F. MURPHY, HOLDER OF THE IRVINGTON-MILBURN ROAD RECORD.

first popularized in Boston in the summer of 1877. In the late fall of that year importations of bicycles became so numerous that two riders, Messrs. Cunningham and Heath, established an importing business. In that same season Colonel Albert A. Pope became interested in the bicycle, and he imported eight wheels. In July, 1878, commenced the era of American manufacture. Colonel Pope became very much interested in cycling, although at the time he was in the air-pistol business in Boston. He converted his business into the Pope Manufacturing Company, and imported a large number of wheels. He also placed a contract with the Weed Sewing-Machine Company of Hartford for three hundred bicycles, which were the first of the "Columbia" make.



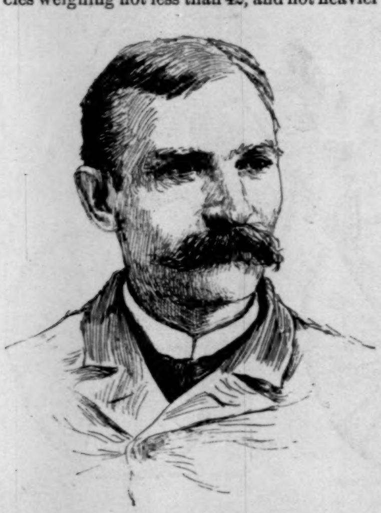
JAMES R. DUNN, PRESIDENT OF THE LEAGUE OF AMERICAN WHEELMEN.

In a history of the sport it is but just to say that of the early makers and importers the Pope Company had the best conception of the business, and apparently took a broader view of the future of the sport than any of their contemporaries. They sank capital in manufacture and experiment, constantly improved their wheels, and nursed the sport. They helped clubs, and established a magazine to promulgate the doctrine of the wheel, on which they spent $70,000 in four years. After the Pope Company came a number of other makers: The Gormully & Jeffrey Manufacturing Company, the Overman Wheel Company, Western Wheel Works, St. Nicholas Manufacturing Company, Smith Machine Company, etc., etc.

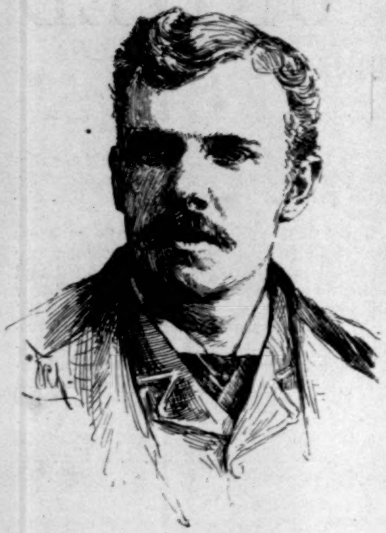
Within the past two years the American trade has taken a sudden leap forward. The old companies have increased their plants and their products, new companies have been formed, enormous factories have been built, and a number of successful agents have commenced to import on their own account. The business is new, and has some peculiar features in its outworkings. One of these features is the fact that nearly all the companies jealously guard the details of their business, and it is impossible to tell the amount of capital employed or the number of machines turned out.

There are large factories at Hartford; Springfield, Chicopee Falls, Mass.; Newton, Mass.; Highlandville, Mass.; Chicago; Toledo, Ohio; Freeport, Ill.; Smithville, N. J.; Westborough, Mass.; Joliet, Ill.; Grand Rapids, Mich.; Washington, D. C.; Rockaway, N. J.; and elsewhere.

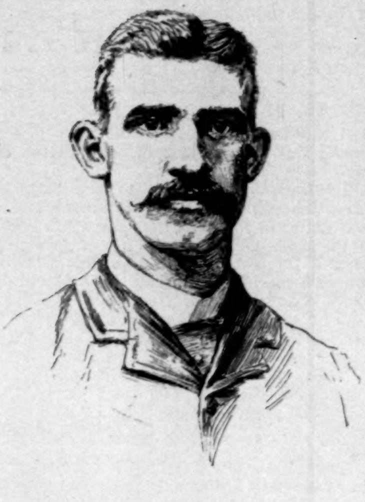
The style of wheel which one might best select depends upon a number of contingencies, as sex, age, physical condition, the kind of roads over which the wheel is to be ridden, whether it is to be ridden by night or by day, etc., etc. People who expect to ride over country roads should select safety bicycles weighing not less than 42, and not heavier than 52 to 54 pounds, which is the weight of some of the most popular American wheels. A lady who expects to ride over country roads can safely invest in a wheel weighing from 38 to 42 pounds, depending on her own weight; or, if she is especially light, a wheel weighing 34 pounds will do.



DR. W. H. EMERY, FIRST VICE-PRESIDENT OF THE LEAGUE OF AMERICAN WHEELMEN.

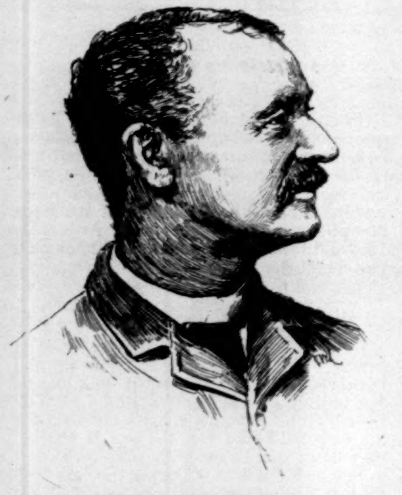


G. R. BIDWELL, SECOND VICE-PRESIDENT OF THE LEAGUE OF AMERICAN WHEELMEN.

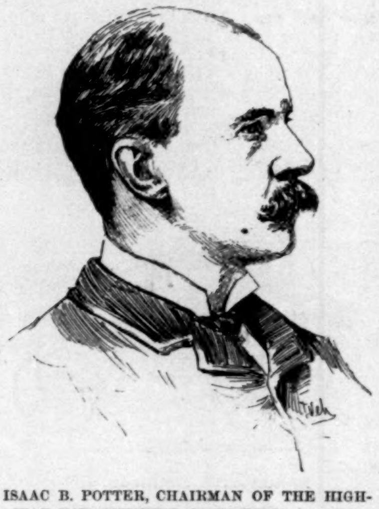


C. S. LUSCOMB, EX-PRESIDENT OF THE LEAGUE OF AMERICAN WHEELMEN.

In cities in which the riding is mostly done in parks, men use safeties weighing from 25 to 54 pounds, the former extremely light and spider-like in appearance, the latter a good all-round wheel. For this kind of riding, a wheel weighing from 34 to 44 pounds is best, though riders who run under 40 pounds must use care when they ride on country roads. Ladies may use wheels weighing from 30 to 38 pounds, the medium and most popular being 34 pounds. Riders who are compelled to do most of their riding by night should use wheels weighing not much under 50 pounds.

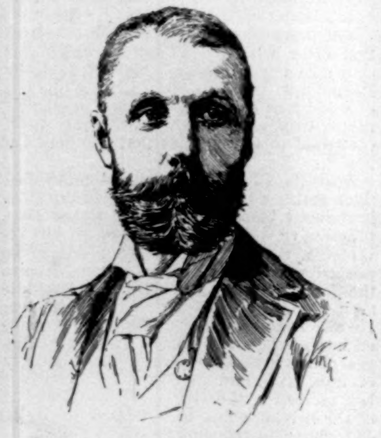


ALBERT MOTT, CHIEF CONSUL OF MARYLAND.

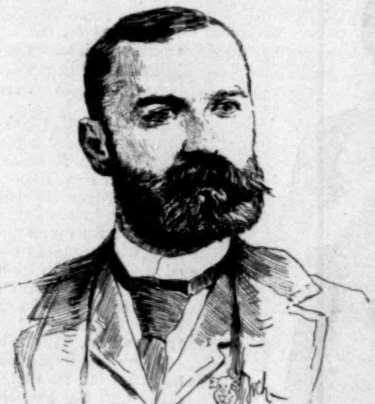


ISAAC B. POTTER, CHAIRMAN OF THE HIGHWAY IMPROVEMENT COMMITTEE, L. A. W.

Wheels may be bought all the way from $75 to $135, the latter being the price of high-grade wheels. If possible, always secure a "diamond frame" safety or a strongly braced "cross frame" safety. Riders who know the amount of power they can expend with comfort try to gain increased speed by "gearing up" their wheels. The average size of safety wheels is 30 inches, but by gearing the wheel up, every revolution of the pedal drives the wheel 54, 57, or 60 inches; the higher the gear, the greater power necessary to propel it. The general rider will find it advisable to stick to the regular gear, which is 54 inches. New riders should never use a higher gear; ladies should never try anything greater than 54, and that is the best style for those who ride wheels weighing over 46 pounds. A very strong rider may use with advantage a 34 or 38 pound wheel geared up to 57; but only the best results are obtained from cycling when the expenditure of power is reduced to a minimum.



W. SHELDON BULL, CHIEF CONSUL OF NEW YORK STATE.



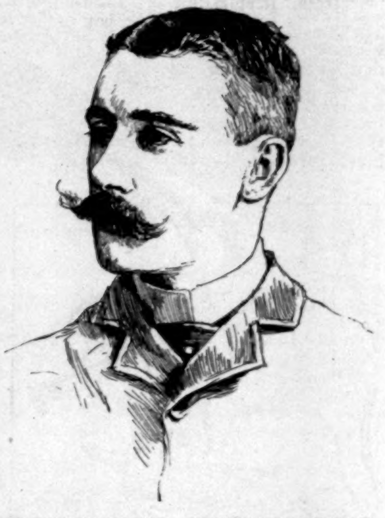
CHARLES S. DAVOL, CHAIRMAN OF THE RACING BOARD.

One important point in the selection of a wheel is to be commented on. Within the past year the attention of riders has been drawn to the subject of vibration, or the jar on the pedals, seat post, and handle bars. So many physicians have discussed this point that it is now generally accepted that much of the fatigue of a long ride is due to this continuous jar, and it is also admitted that it is a hinderance to great speed.

At the Stanley Show, held in London last January, most of the makers exhibited wheels fitted with anti-vibration devices. Coiled springs were fitted to the bottoms of the forks, the saddles were fitted with a series of springs, and coiled springs were introduced into the steering post to save the vibration on the handle bars. The most successful device of the kind at present in popular use is a spring fork on which the two front forks are curved and very springy, giving a pleasant motion to the wheel and greatly reducing vibration.

The best authorities agree that the only proper place to minimize vibration in a wheel is at the point of contact with the ground. This has led to a deal of experiment with tires, and at the present time a number of skilled men are experimenting with cushion tires, rubber tires, and pneumatic tires.

It seems probable that next year will witness a marked increase in the diameter of the rubber tires. At present the popular sizes are $\frac{5}{8}$, $\frac{3}{4}$, and $\frac{7}{8}$-inch, and they will probably range at $1\frac{1}{8}$ and $1\frac{1}{4}$ inches. Hollow rubber tires $1\frac{1}{2}$ or $1\frac{3}{4}$ inches in diameter may also be popular. The most startling innovation in this direction is the invention of the pneumatic tire. The pneumatic tire is a stout rubber tube three inches in diameter and tightly distended with compressed air. Machines fitted with these tires run with marvellous ease, and, up to the present time, appear to be much faster than the solid tire as at present used. But there are serious drawbacks which prevent it from becoming universally popular. The rubber is cut easily by sharp substances—glass, sharp stones, etc.—and at once collapses, necessitating the shipment of the wheel to Dublin, where the inventor's factory is situated. Rubber being porous, the air filters through the tire, and it must be distended from time to time. It is regarded as the nucleus of a great idea.



GEORGE M. HENDEE, BICYCLE RACING MAN: RECORD, 2 MINUTES 31 SECONDS.

TO LEARN TO RIDE.

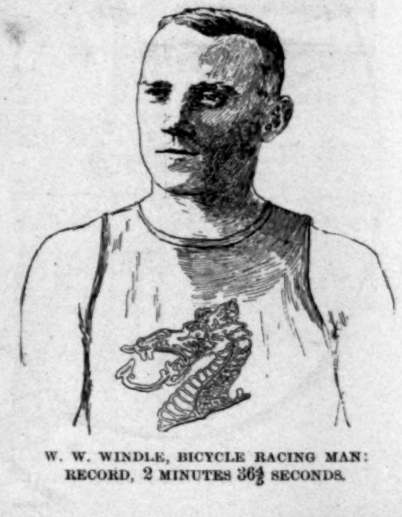
A deal of stuff has been written about the art of riding, but a half-hour's experience in a riding-school or with a cyclist who has a little common-sense is of more actual use than any amount of time wasted over written instructions.

In all cities agents have either riding-schools or the teacher takes the pupil out to a piece of unfrequented road, generally about dusk, as the pupil cuts more or less of an awkward figure, and is naturally averse to furnishing the public with a free spectacle.

It may be accepted as a fact that any one can ride a safety; that it is as easy as walking; but few ride off-hand, because of the fear of a fall. A novice is best taught to ride as follows: Take him on the road, on a portion where there is a slight incline. The road must be free from stones, mud, vehicles, and spectators, the last being most fatal to success. The tutor is to hold the wheel while the pupil mounts, and as the pupil pedals along, the teacher is to balance the wheel and run beside it.

For new riders these things must be observed: The seat is to be at just the proper height, neither too low nor too high; the rider is not to tug at the handles; he is to be taught that the wheel is to be steadied by turning the front or steering wheel *slightly* toward the side to which you are falling; the pedalling must be regular, the same amount of power to be applied to the right pedal as to the left. Most riders turn the handle bar too much in the effort to save themselves, and thus precipitate the fall they might have avoided by a slight turn.

After the pupil has been wheeled about a

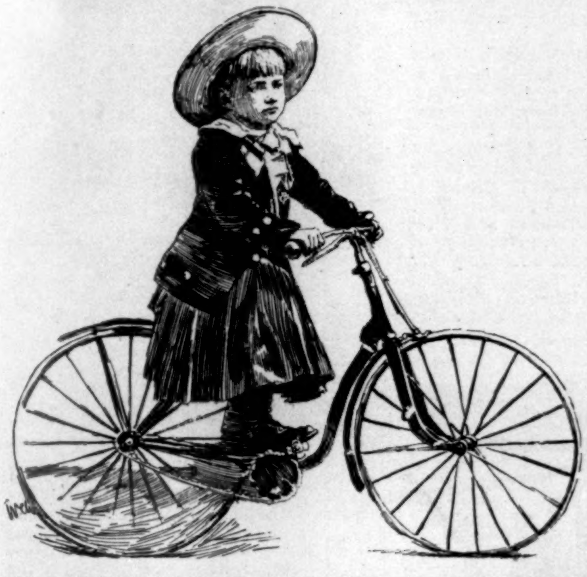


W. W. WINDLE, BICYCLE RACING MAN: RECORD, 2 MINUTES $36\frac{4}{5}$ SECONDS.

bit, he should be started up the slight incline, and the increased power necessary to propel the wheel up hill gives him increased balancing power. The writer has taught a number of people in this way inside the half-hour.

The people who go abroad on wheels are of many types, a number of which are designated, the mere name making further description unnecessary: the boy who rushes along the block on his fiery, untamed three-wheeler; the youth who rides a safety so constructed that as the boy grows the saddle post is elongated, and the wheel is always a good "fit" for him until he is ready to go into long trousers; the boy between seventeen and twenty; this boy, by-the-way, may be divided into two types—the style who rushes in front of pedestrians to their consternation and his amusement, who rides hands off, hands on, legs over handles, rushes up hill, wheels down, frightens horses, and is "fresh," irrepressible, and show-offy generally; the better type of the boy cyclist is he who rides along nicely and enjoys the sport.

And now we are up to the "men" cyclists: the reporter who collects news awheel; the clergyman who makes the rounds; the multitudinous army of clerks who fight off dyspepsia, indigestion, melancholia, and general incapacity by a ride in the park or on the roads after business hours. Then there is the large army who take up the sport not as a life-preserver, or appetizer, or muscle-maker, but for the merits of the thing itself, for the opportunity it gives one to wander far afield in search of beauty and recreation.



EDDIE SCHWALBACH, BROOKLYN, WHO RODE WHEN BUT EIGHTEEN MONTHS OLD.

Besides the riders who go out for constitutional jaunts, there are two other classes, those who tour and those who race, either on the road or path.

Touring is the most pleasurable feature of the sport. Sufficient changes of clothing may be carried to make one comfortable for a few days. To enjoy a tour, a man should first plan to ride not more than forty or fifty miles a day, appoint definite stopping-places, and stick to schedule. The clothing used should be of woollen material, which best absorbs perspiration and prevents colds and stiffness. Few men enjoy touring alone, and if a companion who does not ride any faster or any slower than yourself can be selected, you will enjoy the tour much better.

The greatest tour ever made is Thomas Stevens' journey around the globe. Francis P. Thayer, of Hartford, George W. Nellis, of Herkimer, New York, and Theodore F. Van Mehrbekse, of New York, have all toured across the American continent. F. E. Weaver, of New Haven, has just completed a similar journey. W. Van Wagoner, of Newport, recently rode from Boston to Chicago, and Charles Neilson a few weeks ago rode from Chicago to New York. Long-distance journeys no longer command astonishment, as any decent rider can tour any distance if he has the time.

The favorite touring districts—that is, riding sections which on account of their good roads are of national repute—are the roads around Boston; the Lancaster Pike, which runs from Philadelphia to Reading; the Orange (New Jersey) district, in which are hundreds of miles of good macadam, and the Berkshire district. One of the most famous rides in this country is the ride down the Shenandoah Valley from Hagerstown, Maryland, to Staunton, Virginia, and the Natural Bridge; distance, nearly 200 miles.

The cities which, by reason of the fine drives, park roads, and asphalt pavements, afford the best riding, most popular in the order named, are: Chicago, Washington, Buffalo, Boston, Philadelphia, Orange, New York, and St. Louis, all of which, except New York, are "wheeling paradises." The roads of Canada are excellent; those of England and France superb. In fact, European roads are much superior to those in America, and men ride both fast and comfortably in England and on the Continent. Thomas Stevens states that the finest road in the world is in India, a straight-away stretch of 500 miles, sea-level, and with a billiard-table surface.

CYCLE RACING.

The possible speed of the cycle has always been a fascinating inquiry. Habitual tourists and confirmed constitutional riders pretend to care nothing for "record" or for speed trials, but the majority of riders take some interest in this branch of the sport; sometimes it is a mild, indirect interest, and at others almost a mania, and men who suffer from it devour every word about training and racing, and spend a lot of time and energy in attempting to develop speed, either on the path or road.

Racing was in the early years of cycling essentially the sport of the English, the pioneers of the game being Jack Keen, Stanton, and others. The record may be said to have started at three minutes for one mile. The classic figure of the English race path is Dr. Herbert L. Cortis, who died some two years since. Cortis appeared about 1877, and was at the climax of his career in 1879, when he reduced the record to 2 minutes 41⅗ seconds, which was thought unbeatable at the time. After Cortis's retirement came George Lacy Hillier, Charles Edgar Liles, Herbert W. Gaskell, M. V. J. Webber, E. M. Mayes, R. H. English, and Sanders Sellers, each of whom was the best man of his particular year.

Between 1879 and 1887 new tracks were built in England at Crystal Palace, Long Eaton, Coventry, and Paddington, the last being as smooth as glass, three laps to the mile, and having raised corners. The weight of wheels was reduced from 40 pounds to 19 or 20 pounds, and this great reduction and the superiority of the new race paths enabled the riders to cut the records all round.

In September, 1888, F. J. Osmond cut the mile record to 2 minutes 31⅘ seconds. In the fall of the same year Percy Furnivall, an invincible rider, and worthy of being bracketed with Cortis, rode a mile in 2 minutes 30 seconds, but the record was rejected on account of a technicality.

Since September, 1888, the English record remained at 2 minutes 31⅘ seconds, until July 16, 1890, when F. J. Osmond, who is at present the first rider of a tall bicycle in England, cut the record to 2 minutes 28⅘ seconds, where it stands at present.

MRS. C. W. DALSEN, CAPTAIN FAIRMOUNT LADY CYCLERS OF PHILADELPHIA.

RACING IN AMERICA.

The racing history of this country commences with a race held at Lynn on July 4, 1876, the time being 3 minutes 13 seconds. Between 1876 and 1880 the record was gradually cut to 3 minutes 8¼ seconds. In that year appeared a new star, George M. Hendee, a New Haven boy, at that time about fifteen years of age. Hendee took up the record at 3 minutes 8¼ seconds, and cut it to 2 minutes 50 seconds.

In 1884 the newly built half-mile track at Springfield, and the great interest it attracted to racing, caused a general lowering of the records. In the one-mile event, John S. Prince, an Englishman, cut the professional record to 2 minutes 39 seconds. In the same month, on the new Hartford track, Hendee reduced the amateur record to 2 minutes 39 seconds.

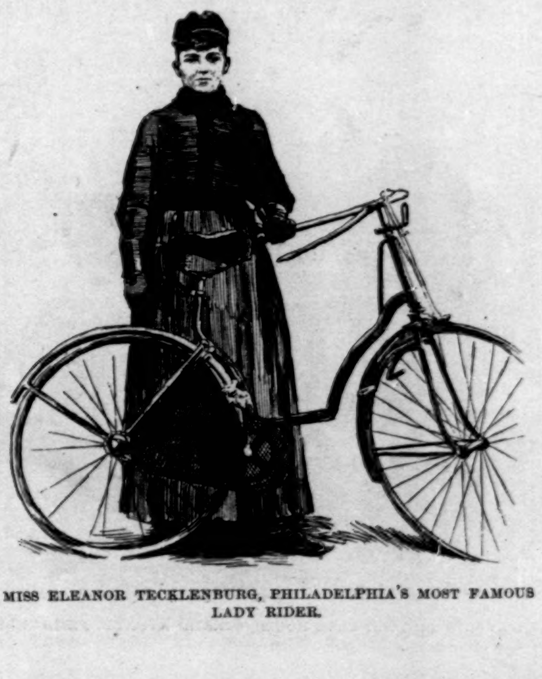
In 1885 a new American rider appeared who threatened Hendee's reign, which had lasted from 1881. This was William A. Rowe, who won many races that year, and reduced the record to 2 minutes 35⅖ seconds, where it stands to-day. The next year, 1886, Rowe became a professional, and going into strict training, he reduced the one-mile record at Springfield, on October 23, 1886, to 2 minutes 29⅘ seconds, which remained the fastest time ever made on a cycle until July of this year. Rowe also rode 22 miles 150 yards within one hour.—Passing from the mile it is to be noted that at least a score of men have ridden over twenty miles within one hour, the record standing as follows: one hour, 22 miles 150 yards, W. A. Rowe; two hours, 39¾ miles, F. F. Ives; three hours, 54¾ miles, F. F. Ives.

SAFETY RACING.*

Within the past year a new phase of the sport has developed in safety racing, which has been kept entirely distinct from racing on "tall" or "ordinary" bicycles. Until July of this year the safety record stood at 2 minutes 36⅕ seconds, or over six seconds behind the "ordinary" record. During the past six weeks a complete revolution has been witnessed, and the safety is now regarded as faster than the ordinary.

During the month of July, R. J. Mecredy,

A. E. LUMSDEN AND H. R. WINSHIP, CHICAGO, TANDEM SAFETY CHAMPIONS: RECORD, 2 MINUTES 33 SECONDS.



MISS ELEANOR TECKLENBURG, PHILADELPHIA'S MOST FAMOUS LADY RIDER.

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* TABLE OF RECORDS.

ORDINARY.

Miles.	English M. S.		American M. S.	
¼ flying..	0.33 1-5.	.Archer		
¼ starting	0.35 4-5. .	"	0.35 1-5.........	Rowe
½ "	1.13 4-5.	.Osmond	1.12 4-5.........	"
¾ "	1.51 4-5. .	"	1.55 1-5.........	"
1 "	2.28 4-5. .	"	2.35 2-5.........	"
2 "	5.12 1-5.	.Illston	5.21 3-5.........	"
3 "	8.14 2-5.	.Osmond	8.07 2-5.........	"
4 "	11.05 2-5.	"	11.11 4-5.........	"
5 "	13.55 . .	"	14.07 2-5.........	"

SAFETY.

Miles.	English M. S.		American M. S.	
¼ flying. .	0.32 1-5..	Sheen		
¼ starting	0.35 1-5..	"	0.35 4-5....	Gassler
½ "	1.11 ..	Ducros	1.14 4-5....	Laurie
¾ "	1.49 3-5..	Mecredy	2.02	Hendee
1 "	2.26 4-5..	"	2.36	Berlo
2 "	5.15 1-5..	"	5.28 2-5....	Laurie
3 "	7.57 2-5..	"	8.13 3-5....	"
4 "	10.39 1-5..	"	11.00	"
5 "	13.16 2-5..	"	13.39 2-5....	"